

»»»» JUNE, NINETEEN THIRTY EIGHT ««««

THE *Photo Lithographer*

★ ★ A LITHOGRAPHED MONTHLY FOR LITHOGRAPHERS

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P56

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SENELITH INKS..

are "TOPS" in quality

No inks rate higher in the estimation of offset lithographers who demand materials of unquestionable excellence . . . who cannot afford to worry around with inks less likely to give the fine results required.

With all the exacting demands on an offset ink . . . to print full tone even after being thinned to flow easily and then having the film split in half by the rubber blanket, for instance . . . it means something when a line of inks in so many brilliant colors can maintain such a reputation for unvarying high quality through so many years.

A full description of the manufacture of inks and fine dry colors and helpful suggestions for the elimination of many offset ink troubles are given in our booklet "Inks, Lithographic and Printing", which we will be glad to send on request.

SENELITH INKFAX

The great tinctorial strength, excellent sunfastness, and easy flowing consistency possessed by sodium tungstate colors have played an important part in the extraordinary development of offset-lithography. The first lithographic ink made with the sodium tungstate process pigment is our Permanent Purple 62. We are now making a full line of permanent offset toners according to this process.

FAST RED TONER 229P

Senelith Fast Red Toner 229P not only prints a rich red even under trying conditions that will cause some other reds to look pink, but it stays red. It has maximum tinctorial strength and easy working qualities.

Resistance } Light: Excellent. Alkali: Good.
Properties } Heat: Very Good. Alcohol: Good.

The Senelith Ink Company, Inc.
32-34 GREENE STREET
NEW YORK, N. Y.

Primrose Chrome 137P
Lemon Chrome 138P
Medium Chrome 139P
Fast Yellow 870P
Process Yellow 457FP
Permanent Yellow Lake 6P-2
Permanent Yellow Lake 2824P
Permanent Process Toner 6P
Permanent Yellow Toner 213P
Permanent Orange Lake 214P
Permanent Orange Lake 2202P
Permanent Orange Lake 137P-2
Chrome Orange Lake 47P
Persian Orange 77P
Fast Orange Toner 137P
Fast Reddish Orange 245P-2
Fast Orange Lake 3044P-2
Fast Orange Toner 245P
Permanent Flesh Lake 245P-2
Permanent Pink Lake 3044P-2
Permanent Cerise Lake 245P
Permanent Flesh Toner 246P
Permanent Rose Toner 3044P
Permanent Cerise Toner 2642P
Permanent Fire Red 1143P
Permanent Red 1311P
Carmillion 3281FP
Process Red 459FP
Sun Red 226P
Brilliant Red Light 223FP
Brilliant Red Medium 224FP
Brilliant Red Dark 225FP
Brilliant Red 786P
Permanent Ceranium Extra P
Madder Lake 212P
Para Toner 2838FP
Toluidine Toner 210P
Fast Red Toner 229P
Fast Red 1327P
Coral Red 687P
Rubine Toner 28P
Permanent Magenta 28P
Permanent Maroon Toner 1112P
Fast Brown 1536P
Fast Brown 1526P
Sepia Brown 2731P
Photo Blue 1093P
Milori Blue 8337P
Dark Blue 2433FP
Brilliant Cerulean Blue 902P
Permanent Cerulean Blue 629P
Permanent Oriental Blue 61FP
Permanent Peacock Blue 823P
Permanent Process Blue 341P
Permanent Oriental Blue 633P
Permanent Cerulean Blue 216P
Permanent Brilliant Blue 58FP
Permanent Marine Blue 864P
Permanent Sky Toner 2836P
Brilliant Blue Toner VP
Permanent Blue Toner 135P
Permanent Oriental Blue Toner 2667P
Permanent Peacock Blue Toner 2635P-2
Permanent Violet Lake 247P-2
Permanent Purple Lake 247P-2
Permanent Purple 62P
Permanent Royal Purple Toner 215P
Permanent Violet Purple Toner 247P
Permanent Purple Toner 218P
Permanent Royal Light 220P
Chrome Green Dark 2628P-2
Permanent Brilliant Green Lake 248P-2
Permanent Brilliant Green 33P
Permanent Brilliant Green Toner 248P
Job Black 347
Process Black 464
Halftone Black 465
Commercial Black 331
Brilliant Blue Black 331
Black Crayon Ink
Laketone
Transparent White 701
Reducing White 521
Magnesia White 766
Gloss White 376
Cover White 1364
Opaque White 2802
Paste Drier
Cobalt Paste Drier
Kallinin Drier
Bronze Powder Richgold or Palegold
Gold Size 2176
Antitack
Reducing Varnish No. 0

Offset PLATE-MAKING

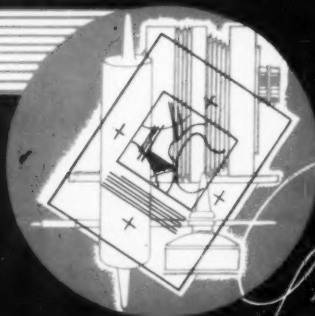


● Good offset plates do not "just happen"—they are made that way, step by step. High quality, dependable plates have been a vexing and costly problem for lithographers.

Graphic Arts plates are made in a completely equipped, twenty-four hour plant, with the utmost care and craftsmanship. To assure our customers of longer press runs, and better printing surfaces, all plates, regardless of size or character, are washed out, rolled up and checked by skilled workmen.

The advantages gained from this extra care can best be appreciated by the lithographer who uses them and thus finds the ultimate solution to his plate making problems. Use any part or all of our facilities—and prove this for yourself. Write, wire, or phone Main 2167.

WE DO NOT OPERATE PRESSES



Color process plates, black and whites, highlights, originals for hand transfer, posters, crayon, color plates, negatives or positives for machine transfer, or photo-composed press plates, albumen or deep etch.

T O L E D O
Graphic Arts Corporation
MAKERS OF FINE OFFSET PLATES
JACKSON AT ELEVENTH... TOLEDO, OHIO

I N T E R N A T I O N A L R E P R O D U C T I O N S

SENEFELDER has "everything for lithography"

Buy from Senefelder and enjoy one responsibility and one high standard of materials, workmanship and service



FOR INSTANCE CONSIDER

SENEFELDER OFFSET MOLLETON

Senefelder Offset Molleton for lithographic dampening rollers is made from long staple cotton possessing a fibre of high tensile strength, which does not come off the nap. It is especially suited for hard wear on high-speed offset presses and provides a strong cover and a firm cushion.

A uniform cross-weave texture throughout gives Senefelder Offset Molleton a perfect surface for the transmission of water from the fountain to the plate. It transmits the water uniformly and will not leave any dry areas on the plate.

Senefelder Offset Molleton is bleached by a special process which removes every vestige of vegetable oil without leaving any residues of bleaching agents. It is guaranteed free from chemicals or acids, and it absorbs and releases water freely.

Senefelder Offset Molleton is made 40" wide in two different thicknesses suitable for all standard offset presses.

While molleton is used universally for the covering of dampening rollers of offset presses for printing on paper, moleskin, a similar textile, is sometimes used for printing on tin. We also furnish moleskin.

For more particulars regarding our Offset Molleton, Lithographic Flannel (for use under the Molleton), and Moleskin, send for our price list No. 1066.

Absorbent Cotton	Gum Arabic	Rolling-up Ink
Acids, Litho	Hand Rollers	Rosin Powder
Acid Brushes	Hydroquinone	Rubber Snake
Alum Powder	Impression Rubber	Slips
Aluminum Plates	Sheeting	Rubbing Stones
Antifin Rubber	India Paper	Schumacher Slips
Preserver	Ink Mullers	Scotch Hono
Asphaltum Liquid	Ink Knives	Scotch Slips
Asphaltum Powder	Ink Slabs	Scotch Tape
Berlin Paper	Kalinin Drier	Scraper Leather
Bronze Powders	Lavender Oil	Scraperwood
Bronzing Pads	Liquid Tusche	Senebumen
Carborundum	Litho Inks	Senelac Varnish
Powder	Litho Stones	Sensitizers
Caustic Soda	Lump Pumice	Sharp Etch
Charcoal Sticks	Magnesia Carb.	Snake Slips
Chemicals, Litho	Maple Balls	Soapstone
China Marbles	Mica Powder	Sponges
Cold Top Enamel	Moleskin	Steel Balls
Collodion Emulsion	Molleton	Steelclay Marbles
Columbia Paper	Mutton Tallow	Stone Cement
Copierlack	Negative Brushes	Strecker Salt
Cornelin Solution	Negative Collodion	Sulphur Flour
Correction Slips	Negative Glass	Tracing Blue
Counter Etch	Negative Varnish	Tracing Paper
"Convenient"	Neg-O-Lac	Transfer Ink
Crayon Holders	Nitric Acid	Transfer Papers
Crayon Ink	Offset Blankets	Transparency
Crayon Pencils	Offset Inks	Solution
Crayon Transfer	Offset Powder	Tusche
Paper	Opaque	Varnishes
Crayons, Litho	Palm Oil	Wiro Brushes
Deep-Etch Supplies	Pen Ink	Zinc Plates
Developing Ink	Pens, Litho	Etc. Etc.
Double Etch Salt	Photographic	
Egg Albumen	Gelatine	
Engrav. Needles	Platinum Etch Salt	
Engrav. Stones	Press Boards	
Etches	Printing Inks	
Excelsior Paper	Process Glue	
Felt Daubers	Process Oil	
Film Filters	Proofing Inks	
Flannel, Litho	Pumice Powder	
Flint, Graining	Quartz, Graining	
Fly Cord		
Fountain Etch		
French Chalk		
Gamburger Slips		
Gelatine Foils		
Glass Marbles		
Glycerine		
Graining Marbles		
Graining Quartz		

THE SENEFELDER COMPANY, Inc.

32-34 GREENE ST.

"Everything for Lithography"

NEW YORK, N. Y.

THE PHOTO-LITHOGRAPHER

*Published in the Interests of Lithographers
to Increase Sales, Efficiency
and Quality*

WALTER E. SODERSTROM, *Editor*

DONALD L. GUTELIUS, *Associate Editor*

SAMUEL D. WOLFF, *Advertising Manager*

Volume VI

JUNE, 1938

Number 6

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Official Organ of the National Association of Photo-Lithographers.
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year in Canada. Single copies 30 cents.

Acceptance under the Act of June 5, 1934. Authorized November 14, 1935.
Other publications issued: The Photo-Lithographer's Manual, priced
at \$4.00 the copy.

A stylized graphic of a globe, tilted and showing only the upper portion. Several city names are written on dark, ribbon-like banners that appear to be pinned to the globe's surface. The cities listed are Seattle, Chicago, Cleveland, Dayton, Albany, Philadelphia, Kansas City, and Los Angeles. The word "SAN FRANCISCO" is also visible on a banner on the left. Above the globe, the words "NOW IN USE EVERYWHERE" are written in a large, bold, sans-serif font, following the curve of the globe's top. Three five-pointed stars are scattered in the upper left area of the image.



AND WHEREVER YOU ARE, THERE'S A BRANCH TO SERVE YOU

SINCLAIR & VALENTINE CO.

MAIN OFFICE AND FACTORY: 611 WEST 129th ST., NEW YORK CITY

GOOD LITHOGRAPHY DEPENDS UPON GOOD PAPER



NORTH STAR
Offset

THE NORTHWEST PAPER COMPANY • CLOQUET, MINNESOTA

WIRE-0

MR. PRINTER:
Your customers will be glad to hear
this story from you. See page **43**

BINDING

Alien Service
 Alpine Press Inc.
 American Can Co.
 American Can Co.
 American Colortype Co.
 American Litho Supply Co.
 American Plate Graining Co.
 W. E. Booth Co. Ltd.
 British-American Tobacco Co., Ltd.
 Brooks Bank Note Co.
 Brownell Photo Litho Co.
 Brownell Photo Litho Co.
 Buck Printing Co.
 Calvert Litho Co.
 Canadian Fine Color Co., Ltd.
 J. L. Clark Mfg. Co.
 Consolidated Litho Corp.
 Continental Can Co., Inc.
 Continental Can Co., Inc.
 Continental Litho Co.
 Court Square Press
 Curt Teich & Co. Inc.
 Allan B. Croke Co.
 Crown Can Co.
 Crown Cork & Seal Co.
 Donaldson Litho Co.
 R. R. Donnelley & Sons Co.
 Duncan Litho Co., Ltd.
 Dymert, Ltd.
 Edwards & Deutsch Litho Co.
 Epsen Litho Co.
 Erie Litho. & Printing Co.
 Federal Lithograph Company
 Forbes Litho. Manufacturing Co.
 A. L. Garber Co.
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 Grinnell Litho. Co., Inc.
 Gugler Lithographic Co.
 Haas Litho. Co., Inc.
 The J. C. Hall Co.
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 Hennegan Co.
 Hopp Press, Inc.
 Honolulu Litho Co., Ltd.
 Howell Litho. Co., Ltd.
 W. H. Hutchinson & Son, Inc.
 Industrial Litho. Co.
 The International Printing Ink Corp.
 The International Printing Ink Corp.
 Jersey City Printing Co.
 Ketterlinus Lithographic Mfg. Co.
 Kindred-McLean Company
 Latham Litho & Printing Co.
 Litho. Plate Graining Co. of America
 Litho Plate Grainers of Detroit
 Mahoney & Reese
 Magill-Weinsheimer Co.
 The McCall Company
 Miller Lithographing Co., Ltd.
 Morgan Lithograph Corp.
 L. Mundet & Son
 National Folding Box Co.
 National Litho. Co.
 National Offset Supply Co.
 National Process Co., Inc.
 Niagara Litho. Co.
 Nivison-Weiskopf Co.
 Oberly & Newell
 Offset Print & Litho, Limited
 Owens-Illinois Can Co.
 Peerless Lithographic Co.
 Plampin Litho. Co., Inc.
 Polygraphic Company of America
 Providence Litho. Co.
 Regenstein Corp., The
 The Reynolds & Reynolds Co.
 Rolph-Clark-Stone, Ltd.
 Rochester Folding Box Co.
 Louis Roesch Co.
 Rustling Wood, Inc.
 G. Schirmer (Inc.)
 Schmidt Litho Co.
 Theo. A. Schmidt Litho. Co.
 Schmitz-Horning Co.
 Schneider Press, Inc.
 Schneider Press, Inc.
 Schwabacher-Frey Co.
 Senefelder Litho. Stone Co.
 Snyder & Black, Inc.
 Spaulding-Moss Co.
 Stecher-Traung Corp.
 Stecher-Traung Corp.
 Strobridge Litho. Co.
 Superior Plate Graining Co.
 Sweeney Litho. Co., Inc.
 The Infantry School (Book Shop)
 Rabt. Teller Sons & Darner
 Tooker Litho. Co.
 Travelers Insurance Co., The
 Union Litho. Co.
 U. S. Plate Graining & Litho Sup. Co.
 U. S. Printing & Litho Co.
 J. Weiner, Ltd.
 Western Lithograph Company
 Western Ptg. & Litho. Co.
 John Worley Co.
 U. S. Dept. of Interior (Geological Survey)
 U. S. Government (Aviation Field)
 U. S. Government Printing Office
 Vermont Gravure & Litho. Corp.
 Zabel Bros.
 Cincinnati, O.
 Boston, Mass.
 Chicago, Ill.
 New York, N. Y.
 Newark, N. J.
 Chicago, Ill.
 New York, N. Y.
 Toronto, Canada
 China
 Springfield, Mass.
 Philadelphia, Pa.
 Detroit, Mich.
 Boston, Mass.
 Detroit, Mich.
 Toronto, Canada
 Rockford, Ill.
 Brooklyn, N. Y.
 Chicago, Ill.
 Passaic, N. J.
 Cleveland, O.
 Boston, Mass.
 Chicago, Ill.
 Boston, Mass.
 Philadelphia, Pa.
 Baltimore, Md.
 Newport, Ky.
 Chicago, Ill.
 Hamilton, Ont., Canada
 Toronto, Canada
 Chicago, Ill.
 Omaha, Neb.
 Erie, Pa.
 Washington, D. C.
 Boston, Mass.
 Ashland, Ohio
 Philadelphia, Pa.
 New York, N. Y.
 Milwaukee, Wisc.
 New York, N. Y.
 Providence, R. I.
 New York, N. Y.
 Cincinnati, O.
 New York, N. Y.
 Honolulu, Hawaii
 Hamilton, Ont., Canada
 Chicago, Ill.
 Brooklyn, N. Y.
 New York, N. Y.
 Chicago, Ill.
 Jersey City, N. J.
 Philadelphia, Pa.
 New York, N. Y.
 New York, N. Y.
 Brooklyn, N. Y.
 Detroit, Mich.
 New York City, N. Y.
 Chicago, Ill.
 Dayton, Ohio
 Toronto, Canada
 Cleveland, Ohio
 Brooklyn, N. Y.
 New Haven, Conn.
 Detroit, Mich.
 Kansas City, Mo.
 New York, N. Y.
 Buffalo, N. Y.
 Cincinnati, Ohio
 New York, N. Y.
 Toronto, Canada
 Baltimore, Md.
 Chicago, Ill.
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 New York, N. Y.
 Providence, R. I.
 Chicago, Ill.
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 New York, N. Y.
 New York, N. Y.
 Boston, Mass.
 Rochester, N. Y.
 San Francisco, Calif.
 Cincinnati, Ohio
 Brooklyn, N. Y.
 Belleville, N. J.
 Fort Benning, Ga.
 New York, N. Y.
 New York, N. Y.
 Hartford, Conn.
 San Francisco, Calif.
 New York, N. Y.
 Brooklyn, N. Y.
 London, England
 Los Angeles, Calif.
 Racine, Wisc.
 Boston, Mass.
 Wash., D. C.
 Dayton, Ohio
 Washington, D. C.
 No. Bennington, Vt.
 Philadelphia, Pa.

From A to Z

You'll find

ENTHUSIASTIC ZENITH USERS IN THIS LIST

—concerns that have found enthusiasm for Zenith, the modern litho plate grainer, extending from the graining department to the president — from the craftsman's pride in a fine piece of work to the president's appreciation of Zenith's help in increasing sales through more efficient production.

Because the commendatory letters we have received from lithographers would make a good sized book. —

Let Us Give You a Few Excerpts Just from the "S" Cheering Section

"After outfitting our Rochester plant with your graining machines and noticing the beautiful work we obtained from them, we decided to outfit our San Francisco factory with your Zenith Grainers, of which we have just installed two. . . They are certainly a revelation to our San Francisco factory in the amount of work they do and the quality of the grain which is perfect, and, as you know, the grain of the plate is the foundation of printing fine work by the off-set process. We are now 100% Zarkin Zenith Grainers in both our Rochester and San Francisco plants."

— STECHER-TRAUNG LITHOGRAPH CORPORATION

"Referring to your letter of January 27th, regarding the three Zenith Graining machines, which you installed for us, we are very pleased to advise you that these machines have been operating very satisfactorily, and the plates which they produce are of uniform quality. We also wish to thank you for the very fine service that you have given us on these machines. It is a pleasure for us to recommend these machines to anyone contemplating their purchase."

— THE STROBRIDGE LITHOGRAPHING CO.

"We have been using your Zenith graining machines since 1930 and we are pleased to say that we have found them entirely satisfactory. These machines are very smooth and quiet in operation, very efficient in the production of graining plates, and they have never caused us any delay the entire time we have had them. Through the use of the patented dumping devices we are able to consistently use steel marbles to better advantage, by putting them in the machine without scraping the plates. We are able to recommend your machine any time, as we consider it the best in the market."

— SCHMIDT LITHOGRAPH COMPANY.

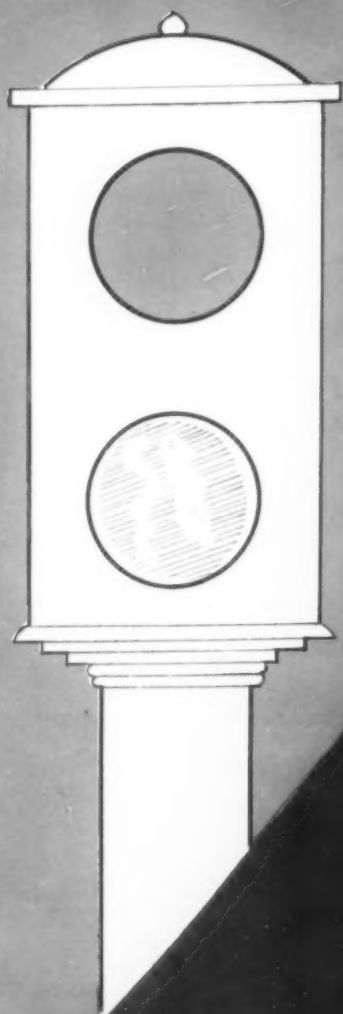
Literature on Zenith equipment and rebuilt presses will be sent you on request.

ZARKIN MACHINE COMPANY, Inc.

Manufacturers of ZENITH
The Only Gearless Single Eccentric Graining Machine

335 East 27th Street

NEW YORK, N. Y.



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BLANKET TROUBLES!

- Greater tensile strength
- No blemishes or porosity
- Supersmooth surface
- Oil resistant surface and plies
- Safest minimum stretch



with

MERCURY BLANKETS

RAPID ROLLER CO

D. M. RAPPORT, President

Federal at Twenty-sixth St., CHICAGO, ILL.

STAY-FLAT SOLUTION

The logical material for supporting film evenly
and securely on glass for camera exposures.
Its characteristics include

1. PERFECT ADHESION
2. TWO TYPES — REGULAR AND MATTE
3. EASY TO APPLY
4. APPLICATION USED REPEATEDLY
5. ECONOMICAL
6. CLEAN
7. DEPENDABLE

**FOR BEST RESULTS
USE BEST MATERIALS**

MADE BY AGFA ANSCO CORPORATION IN BINGHAMTON, NEW YORK



IT'S NEW! . . .

The MONOTYPE-HUEBNER VACUUM BACK

At Last! A thoroughly practical, efficient Vacuum Back, specially designed for use with the Monotype-Huebner Overhead Color-Precision Motor-Focusing Camera. Firmly holds film and paper negatives absolutely smooth and flat during the time required to make exposures, no matter how long this may be.

Vacuum is continuous, and the results are positive; holds glass plate as well as film or paper; flexible in handling various sizes of negatives, and extremely rapid in operation.

FEATURES and ADVANTAGES—

The M-H Vacuum Back meets every requirement for practical work:

1. It has a powerful grip on the film or paper.
2. It holds it in a perfectly flat plane free from waves or indentations.
3. The image is always in focus at all points of the film to produce uniform dot formation over the entire film.
4. It economizes on film because the required size can be located exactly where it is needed on the vacuum holder.
5. It is adapted to hold any required size film in a minimum of time by changing the mask for holding the desired size film. This can be done within fifteen seconds.
6. It is free from vibration.
7. The arrangement of the vacuum holes outside the work area insures perfectly uniform exposure without showing indentations caused by vacuum holes when they are placed inside the work area. (This remedies a defect which has existed in other vacuum backs offered for use up to this time.)
8. It can be swung in and out of operating position in a few seconds and is ready for instant use at any time.

Full description and photographs sent on request

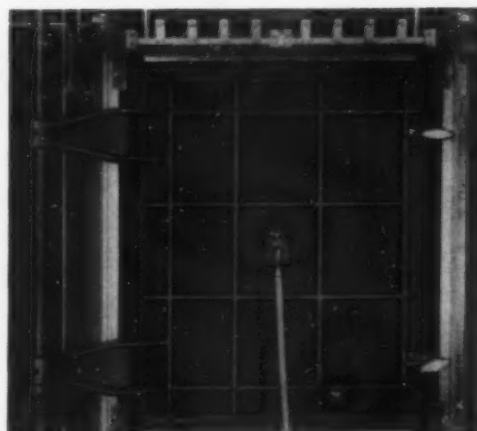
LANSTON MONOTYPE MACHINE COMPANY

MONOTYPE BUILDING, TWENTY-FOURTH AND LOCUST STREETS, PHILADELPHIA, PENNA.



M-H VACUUM BACK . . . Operating Side

With Film Positioning Plate in Location—Vacuum is applied through the holes in the positioning plate, which contact the margins of the negative. A continuous rubber seal, outside of the holes, maintains the vacuum. Positioning plates are made in various sizes to accommodate different sizes of negatives. Bracket hinges permit Vacuum Back to be swung in and out of its exposure position.



M-H VACUUM BACK . . . Rear View

Located in Exposure Position—This photograph shows rigid construction of the M-H Vacuum Back. In order to close up in this position the upper and lower negative rails of the camera are moved apart as far as possible. Two spring clamps shown on the right side hold the Vacuum Back firmly in position. In center is shown metal hose connection, with the heavy rubber vacuum hose running up to it.



Composed in Monotype 20th Century Family, with Monotype Spire

THE PHOTO-LITHOGRAPHER

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WALTER E. SODERSTROM, *Editor*

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Volume VI

JUNE, 1938

Number 6

L. N. A. CONVENTION COMMEMORATED FIFTY YEARS OF ORGANIZED PROGRESS

Now that the Thirty-third Annual Convention of the Lithographers National Association has taken its place in the history of the lithographic industry, program details mean less than nothing in retrospect. Of great interest to every lithographer, however, should be the fairly comprehensive reports *The Photo-Lithographer* is carrying in this issue of the most important talks made at the convention. They throw light on vital current trends in the industry as seen from a number of angles by the lithographer himself, by men intimately connected with cooperating services, and by consumers of lithographed goods.

Throughout the convention

—from the opening address of the President, General William Ottmann, on Tuesday morning, May 10, to the last shot at the last hole in the golfing contests that occupied all of Friday, May 13, the members of the Association, their guests, and others who came to Hot Springs especially for the convention, benefitted from unusually stimulating oral "shots in the arm," lively arranged Association discussions, and other activities that concerned very intimately the welfare of the Association members and, to a large extent, the interests of the industry, in general.

It was fitting that this year's convention should have been one of the most successful conventions ever held by the Asso-

ciation, commemorating as it did the fifty years of organized lithographic progress represented by the L. N. A. since its organization in 1888.

The new administrative set-up of the Association for the next convention year, according to the election held at the convention, will be found on page 17.

The winners and donors of awards in the golf events held through the three days of the convention are listed on page 28.

On pages 14, 16, 18, and 20 are a number of pictures of people who contributed to making the L. N. A. Thirty-third Annual Convention one of the year's outstanding events in the lithographic industry.



Left to Right

1. Maurice Saunders, Edwin B. George, R. T. Ode.
2. Alfred F. Rossatti, W.H. Walters.
3. E. H. Wadewitz, W. F. Cornell.
4. General William Ottmann, George R. Meyercord, Charles P. Schmid, R.T. Ode.



Left to Right

5. Charles R. Cosby, A. J. Wilmanns.
6. Christie T. Clark, L. H. Jackson.
7. Robert Callender, E. H. Wadewitz, W. S. Forbes, Alfred B. Rode.

WATCHMAN, WHAT OF THE NIGHT

This is the somewhat pessimistic query that was put to Edwin B. George by the talk-titling officers of the L. N. A.

Mr. George, from a high and far-seeing perch, built on searching study of past and current trends in economic, political, and social affairs in his capacity as economist of Dun & Bradstreet, Inc., and Associate Editor of "*Dun's Review*," quite evidently sees both "the forest and the trees" of national trends in a clear, objective, and dispassionate light. From his vantage point he gave the assembled lithographers quite a few "whats," not only "of the night," but also of the days that will continue to follow the nights.

Space limitations prohibit publication in full of Mr. George's talk. And in fairness to the many profound thoughts he expressed concerning vital economic, political, and social problems, the reader is cautioned that the following excerpts do not constitute a well-balanced resumé. They are published just to give the reader a few of Mr. George's most illuminating comments.

FORECASTING is about the most dangerous sport in the world. . . All that we can really do is to look at the passing show, not in judgment, but to try and identify the parts that really belong to the deep streams of evolution and those that are merely political spray and find themselves expressed in laws that come and go. . .

It is hard to know, in appraising the current scene, what is really cause and what is effect. Of this your own industry is a living demonstration. When he scribbled his laundry list on a slab of limestone many years ago Alois Senefelder could not dream that he was writing the opening chapter in a proud history, and that some 142 years later such bewildering names as relief printing, intaglio, and lithographing would be among the symbols of a new civilization. Senefelder, who was one of the original causes of this new conflict and this new competition, was himself but an incident in time. . .

. . . People will eventually do what they want with the laws. Our need is to gauge the elemental forces. . . If we can do that, the average business man is going to muddle through somehow and weather the storms that come with changing reforms and laws. . .

Any such effort as this to pierce the future could really leap over immediate issues and be labeled, "After reaction, what?". It is in these terms that I am going to attempt to look at some of the factors that are now at work in our social and economic civilization and make a stab at what public opinion may eventually do to them. We will call them horoscopes. . .

Horoscope No. 1. . . An abundant supply of labor makes for lower wages but . . . both union activity and governmental support of it have been exerting an opposite pressure toward higher wages. One of our long-run problems is the result of that conflict. I think it may influence the relative

extent to which we are going to use high-priced labor or more new and economical machinery. . . The differences in the intensity of a problem can be as dynamic as the introduction of new problems, themselves. . . The consequences might well be unionization on a fairly broad scale, but subject to much stricter discipline, both external and internal. . .

Horoscope No. 2. We may have to reckon with the continuance of an already existing trend—increased emphasis on selling as compared with production and perhaps with it a still livelier interest on the part of government in selling methods. This touches on advertising and advertising touches very definitely on lithography. . .

It could accentuate existing resentment against what many believe to be an artificial emphasis on promotion and consumer appeal. . . Witness, for example . . . the thousands of drug-store items and specialties, many of them identical or nearly so, among which the consumer is given such a lovely choice and for which she pays so dearly in multiplied promotional cost. . .

Our advertising bill in 1929 was 584 million dollars—two-thirds for local and one-third for national. That sum . . . represents only about 1.5 of the total distribution bill, so that it is easy to see how people make the mistake of failing to think of advertising cost in terms of its function in the whole distribution plan. The irritating aspect lies in the fact that for many products this percentage is far higher. . . One reason for this disparity is the passion for brands and,

as usual, there are two sides to that. It is very necessary for the manufacturer who is depending on public acceptance and good-will for distribution of his goods . . . but it is not always of the same value to consumers as a whole. . .

. . . I know an outstanding economist who is so convinced that there will be an eventual licensing of products and of some kinds of outlets because of the duplication in competitive efforts that he feels that something like it will happen within five years. I don't share that feeling, but the fact that it is a belief held by responsible people is the reason for my presentation of it as one of the things . . . we will want to consider.

Horoscope No. 3. Increasing sensitivity to the problems of the small business man. . .

. . . It may be questions like this that we will have to answer in the long run: Where do we want to draw the line between our desire to capitalize efficiency at all cost and our desire to preserve individual opportunity at all cost? In other words, what kind of economic world do we want to live in, and what price are we willing to pay in curbing . . . the ordinary processes of competition? Such questions seem certain to reach into the future, lying much deeper than the casual and not completely thought-out laws that we have passed at the moment, and we will continually have to be adjusting ourselves to the changing answers. . .

. . . The new system is here and



Left to Right
 1. W. W. Schaumann,
 Otto E. Zahn, Allen H.
 Frost.
 2. A. S. Harris, Louis
 Traug, Harry Porter,
 W. W. Schaumann,
 Walter A. Conlan,
 Summerfield Eney, Jr.,
 J. W. Valiant.
 3. Mrs. J. W. Valiant,
 Mrs. Harry Porter, Mrs.
 A. S. Harris, Mrs. Wil-
 liam G. Martin.



Left to Right
 4. Isaac Stiefel.
 5. Mr. and Mrs. Stanley
 C. White.
 6. Miss Grace V. Cant-
 well, Gus Haustein,
 Miss Helen Gorin.

the only latitude that we have is not whether to go back, but what to do with the new problems. . .

The list of choices can go on forever, but the important thing about them is that they all belong to the living organism of 1938 and not that of fifty years ago. The decision can never be to repudiate mass production or turn workers back to the greater independence of the soil, or to pulverize bigness in the interest of a mere preference for a simpler form of life, because it just can't be done. . .

. . . We face increasingly the dangers of mass psychology. It is in the air. It is natural to humans and it is more menacing today because of the rush to new ideologies abroad and the greater and new internal strains at home. . .

. . . Probably one of our faults in a highly organized society is to congregate in groups with highly specialized problems that . . . are only a fraction of all the problems of all the people and yet which color our outlook on national issues. . .

. . . We lunch together and golf together and attend conventions together, assail the administration together, and knit our brows over business curves as though by a common muscle. . . We are probably guilty at times of a little too much mental in-breeding, with a consequent sterility of ideas about fundamentals. It is sometimes said, I think with some truth, that we haven't had enough contact with people whose different environments are responsible for their different opinions and views about public policy. . .

The last horoscope is this: We can almost take for granted that we will be dealing with increased government activity, either as an aid to or burden on the national economy and on business life. . .

I might add as a precaution that the kinds of relations between government and business in this area are not at all limited by any divine pattern to the extreme of fascism and communism. There can be a thousand intervening steps. . . But it is a fairly basic proposition, even in this country, that private power entails public responsibility, and I think that most of our great industrial

L. N. A. OFFICERS AND DIRECTORS FOR 1938-1939

THE following officers and directors, elected at the convention in Hot Springs, will serve the Lithographers National Association during the next year.

MAURICE SAUNDERS - *Chairman of the Board*
WILLIAM OTTMANN - *President*
E. H. WADEWITZ - *Vice-President*
MILTON P. THWAITE - *Treasurer*
W. FLOYD MAXWELL - *Secretary*

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The Meyercord Company
Chicago, Ill.

leaders feel that this is so. It is not so long a jump from that knowledge to at least a loose working-consultative arrangement between government and the giant industries concerning the policies most likely to promote the common welfare. . .

Fully aware of the fate of prophets, I have made no pretense of offering you firm conclusions of my own, because I doubt if there are very many people who have absolutely solid, undefiable opinions on all of the matters I have tried to discuss. . .

The only sure ground we have to stand on is that we have never liked economic change very much, that we have always had it, and that somehow or other we have always managed to survive. . .

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St. Louis, Mo.
GEORGE C. KINDRED, *President*
Kindred, MacLean & Co.
New York, N. Y.
GEORGE E. LODER, *President*
National Process Company
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Cleveland, Ohio
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American Colortype Co.
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ST. ELMO NEWTON, *President*
S. C. Toof & Co.
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U. S. Printing & Lithograph Co.
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P. N. CALVERT
Reserve Litho. & Printing Co.
Cleveland, Ohio
GEORGE MEYERCORD
formerly The Meyercord Co.
Chicago, Ill.



Left to Right

1. Mr. and Mrs. J. W. Valiant, George A. Heintzemann, Walter E. Soderstrom.

2. George R. Meyercord and Mrs. W. F. Maxwell.

3. Mr. and Mrs. C. E. Vallette.



Left to Right

4. Mrs. A. J. Wilmanns, J. R. Lowe, Arthur A. Goes, Harrison Caner, Jr.

5. An Efficient Golf Four-some.

Streamlined SALES PROMOTION

... I know nothing about lithography—except that it probably does more to close consumer sales than any other medium in existence. . .

But I would NEVER be able to make that statement—or prove it—and don't you think I can't prove it—had it not been for years spent in the food and drug industry—had it not been for those behind-closed-door opportunities to listen in on sales managers' analysis of the effectiveness of displays at point-of-sale advertising.

This brings me to the first station in my extremely informal observations of a great industry—an industry which does as much as any related force to keep national magazines, newspapers, or the radio, in business today.

We, the actual and potential users of lithography, know so infernally little about what it is, what it costs, how it operates, where it may be best adapted—that it just isn't funny.

Let me illustrate by taking our own business as an example. . . This publishing business is on a broader basis—with lithography touching it at least three points.

First, we publishers must keep a steady flow of smartly-conceived promotion moving out to the prospects, and to active advertisers. The more novel, the more commanding, the more spirited these mailing pieces, the greater the attention value. Is this a field for lithography? If so, it's a honey, for the employment is regular, the budgets adequate, and the taste and the intelligence of your prospects are in the upper brackets.

The second point I may illustrate by the case of the notion-manufacturer who said the other day—"Odell, don't tell me the name of your papers, just tell me what you'll do for me if I advertise?" He referred to that elastic and naive phrase—merchandising service. This merchandising service might mean letters to his trade—or display cards—or brochures, or a dozen other pluses. I know publishers who have merchandising funds

Excerpts from the address by

ELLIOTT ODELL

Advertising Director, Fawcett Publications, Inc., New York,
to the Lithographers National Association at its
annual convention

(Editors' Note—No editorial pencil swept easily through the copy of Mr. Odell's address. Every blue stroke was made with the regret that our limited space wouldn't permit publication of the entire address. Nothing we have read in a long time has been so full of valuable suggestions, particularly in regard to rich—and often neglected—markets for the lithographer's services.)

running into the hundreds of thousands of dollars. And all of them have a day-by-day struggle to find new, refreshing ways to present the virtues of medium and advertiser for the benefit of the trades with which they are concerned.

The third phase embraces our own circulation sales. It may surprise you—as it did me—to know that our little company sold, through drug stores last year—over two million dollars' worth of magazines. That is a higher total sum than 90% of the proprietary items on the shelves of those drug stores. I daresay that this figure would compare favorably with some of your most sought-after, blue ribbon, lithographic prospects among the manufacturers. . .

Let me take the stance—What I'd do if I were the sales manager of a lithographic house. . .

In this high-spotting task, I have admittedly stressed the display phases of lithography. But I am certain that those of you who function in other zones should be able to make application to your particular activities.

For one thing, as a lithographic sales manager, I'd look with a lot of practical envy at the refreshing primer devised by the Niagara Lithograph Company—which simplified for the busy advertisers the results of the Window Display Survey.

This excellent, informative and breezy summary of a lengthy analysis

is superbly geared for your busy executive prospect. . .

I'd look carefully at the growing volume of consumer merchandise in syndicate stores and analyze the peculiar display problems surrounding these outlets—for they do a 75 million-dollar-business a year. And they stock some 22 thousand items in the field of 10-cent to 1 dollar merchandise. I would take my cue from the syndicate-store buyer who bemoaned the tons of beautiful 2-dollar, 3-dollar, and 4-dollar displays that reposed in his basement—and begged so urgently for those keen, small display cards known as talking signs.

There's a science to efficient display in this field—and I would like to see it discussed some day for the benefit of the more-than-5-thousand important manufacturers, large and small, who depend almost exclusively on syndicate-store distribution. Surely you should have these answers at your fingertips. . .

I'd find out what effect this on-rushing volume-dispenser of grocery products—super-market development in America—will have on packaging and display. . .

I am not certain of the character of rule and regulation governing display in super-markets. But I do know that it is the paradise of the nationally-advertised brand. I do know, too, that with no clerk to act as steerer for the woman-shopper, success depends on



Left to Right
 1. Christie T. Clark, Mrs.
 William G. Martin, Mrs.
 Harry Porter, Mrs. Harris,
 Mrs. J. W. Valiant, George
 R. Meyercord.
 2. Harris W. C. Browne.
 3. Mrs. Charles F. Traug.
 Mrs. Frank P. Allen, Mrs.
 E. H. Wadewitz (far right).



Left to Right
 4. Miss Josephine Harris,
 R. V. Mitchell, A. J. Math.
 5. P. N. Calvert, Mrs. M. P.
 Thwaite, A. J. Wilmanns,
 Mrs. A. S. Harris, John F.
 Devine, A. S. Harris, Mrs.
 W. H. Merten.
 6. H. C. Mackenzie, J. B.
 Burnham.

a combination of factors—a combination of the reputation of the product, and of its display characteristics and accessories. . .

One large food manufacturer told me the other day that his investment in lithography—in the form of banners, pennants, streamers, and cards—for his sales-drive in super-markets was running into garish figures. But he also told me that things were happening to his sales that made the display investment look pleasantly small.

I'd make a pal out of at least one keen trade or industrial paper executive in every important field. These boys know the trends—they know the new products—they know the deals and merchandising methods that have such a visible effect on display, direct mail and premium policies and opportunities.

These are men you will meet at the big food, drug and toilet goods and advertising conventions—and their advance tips, on events sizzling on the griddle, lead to many a triumph. . .

From my trade-paper pal I'd learn that fair-trade affiliations—rampant in the two great fields of liquor and drugs—have sharpened the appetite and the capacity of manufacturers to absorb point-of-sale materials. Now—after years of casual neglect—manufacturers, particularly manufacturers in the drug trade, are looking with earnest eyes on those 15-thousand small-city and village druggists who were neglected for so long in favor of the department stores and chains. For now, activities of department stores and chains, on behalf of nationally advertised products, have been lessened by the fair-trade restrictions. . .

Many of you major in the packaging phases of lithography rather than display. For this group, I'd recommend field research at regular intervals, which would be designed to draw from the retail trade the degree of acceptance, or lack of it, of the virtues of display containers. Such research should embody data on the physical dimensions of small display cartons which are most suitable for the shelves and counters of the retailers. . .

I'd go further. If my interest lay

principally in the packaging phase, I would follow closely the early deliberations of the Production Managers' Association which was recently formed by major processing executives in the food and drug field. These are the men who call strikes and balls on the economy of packaging—men who know instantly whether an idea created in your plant is strictly screw-ball—or whether it has the elements of field acceptance and sales inspiration. . .

. . . I would have in my archives a faithful diary of achievement for every one of my clients. This record would list events from the submission of the first plan—or rough—to the completion of the merchandising cycle involved. I am absolutely convinced we all lose plenty of customers because those customers did not successfully promote and merchandise the products we sell them. This running record I recommend will help no end as sales material on new accounts, and as a defensive on those already on the books. . .

Surrounding us today are business conditions which have no doubt reflected themselves in your sales volume as they have in mine. In your case it is a bit paradoxical, particularly to those who major in display material, because fair trade acts, the Robinson-Patman bill, and the decline or fall of certain avenues of consumer goods distribution, have raised the acceptance of point-of-sale material to a higher position than at any time in its history. . .

. . . I urge a constant study of trade papers, newspapers and national magazines, for news of new companies, new products, the fanning of ambitions glowing with opportunity. From the columns of the current industrial press you may run an exploring finger along the course of at least one great new industry whose foot is barely in the door of our everyday life. When the body follows the foot which will happen very shortly, we will have a visitor indeed. I refer to the industry of frozen foods. . .

I wonder how many of you ever see what is known as the pre-dates of the *New York News*, *New York Mirror* and other metropolitan papers? These Sunday editions are printed long in advance of those delivered to our New

York homes, and are sent broadcast throughout the country. They are really magazines of the mass variety—with low rates applying—and are a hot-bed of product experiment to determine futures. In their columns appear hundreds and hundreds of new products each year. A certain percentage of these will emerge within a period of months as the Cutexes, Drenes, Pepsodents, and Alka-Seltzers we revere today.

I know one such product that had its early tests last summer. The tests and consumer repeats stamped the product as a natural, and the loins were girded for a national attack, to begin this spring and summer.

One hundred and fifty thousand dollars was available for the initial consumer and trade barrage. The fuse was touched off a month ago with schedules in twenty large national magazines, full pages in trade papers, and a merchandising plan par excellence. The funny twister in this is that the advertiser's office is a block and a half away from the plant of one of your member-lithographers. Yet this swell little prospect has not received one single missionary call from that or any other lithographer. . .

. . . Our eyes must be peeled for the naturals—for the opportunities we may turn to our profit. Sometimes how hard it is to spot them! . . .

Is the era of mass—not to say conglomerate—window display passing? This phenomenon raised hob with many of our ambitions. But, according to folks who ought to know, it is slowly losing its grip on the retailer's affection. In its stead comes the family-of-products window display—the deal display that involves hook-ups such as Fitch and Campana—Dr. West and products of their contemporaries—McKesson & Robbins, and so many others. Study of these shifting trends is certainly mandatory.

Conventions and industry meetings draw the critical fire of many sales and administrative executives. They consider them periods of jolly surcease from labor and anemic contributors to the profit of those individuals or companies who attend. Doubtless this has been true—and can always be true—depending as it does on what

the individual puts into the meeting—and what he takes away.

Business sessions are always carefully planned by intelligent and conscientious association officers. Your presence at the meetings cannot fail to produce at least *one idea* worth the investment of time and money. My experience has been that the good derived is measured in multiple rather than single units. . .

Perhaps you veterans of thirty conventions know everyone. Perhaps all the answers are at your fingertips. . . If so,—why not cut in your sales managers, assistant sales managers, and sales-promotion executives? These men are usually younger—with limited acquaintance in the industry. They are young men eager for knowledge which may come via the thought-providing grist to your business sessions mill. . .

To you who specialize in direct mail, the thoughts I have expressed apply just as concretely as they do in the matter of display lithography.

I have high-spotted the publishers promotion problem that I know so well. Of far greater magnitude to the direct-mail specialist is the link to be forged between manufacturer and distributor—particularly those distributors in the wholesale field and the divisions of department, syndicate, and chain stores. These latter merchandisers live in a world where inventories of individual items run into the 20, 40, and 60 thousands. Therefore the necessity on the manufacturer's part is to attractively present his merchandise so it stands out from the crowd. Trade paper promotion of deals and special offerings should always be supplemented by pungent direct mail. And lithography plays this part economically when the lists of buyers and merchandising managers are long and weighty.

Please let me shout with distended lungs in the cause of package inserts.

. . . The power to induce rapid use, multiply consumers, cross-advertise related product—and a host of other important functions—should be dinned constantly in the ears of our clients and prospects.

And now a nod in the direction of those interested in the manufacturer

of merchandise-premiums. The American people, of all ages, are developing a new version of writer's cramp, brought on by invitations to remove the tops, sides, and B. T. M's of product cartons. Yet this motion has opened wider the doors of the 5 hundred million dollar premium industry in America—the radio playing a not-so-quiet obligato.

Here is a challenge for you men that is matched nowhere else to my knowledge. Our friends, the manufacturers of silverware, the molders of plastics, and others in related fields, have moved in and taken front seats. But the search is ever active for the new, the novel, and above all, the economical.

The greatest short haul premium-promotion the drug trade has ever known is active on the business stage today—and some lithographer, at present unsung, has done a whale of a job.

I refer of course to the Mickey Mouse, Donald Duck, Snow White, Dopey, and the six other little national figures which were so brilliantly devised for Pepsodent. It is a lithographic triumph. . .

The day of deals—to the consumer and to the trade—is far from over. And I repeat—there is a challenge from green fields of opportunity on every lithographic door-step.

For you who labor in the vineyards of book reprints, I have this to say—the premium field may well prove to be your oyster.

On good authority, I hear that the Colgate book promotion is a winner of no mean proportions—popular with dealers and exceedingly well received by the consumers.

A study of this merchandising scheme and its results may well turn an interesting page in the world of books reprints,—by lithography—if, as I understand, you can offer the manufacturer the advantages of a desirable economy. . .

May I please repeat, in closing, my hope that you will as an industry spread wider the knowledge of your individual triumphs and achievements. . . If you do not start the ball rolling, no one will do it for you. . .

Highlights of L. T. F. Annual Report

ALFRED B. RODE, President of Lithographic Technical Foundation, told of the encouraging progress made by the Foundation in his address to the L. N. A. Convention at Wednesday morning's session.

The annual report of the Foundation is published in full elsewhere in this issue, but the following excerpts from President Rode's address highlight some of the Foundation's activities:

"When the Foundation started in 1923 there was no such thing as co-ordinated educational and fundamental research for the graphic arts. The only place we knew of was the Leipzig School in Germany and even there research efforts were very limited. . . .

"I asked the head chemist of one of the large paper companies to what influence could be credited the fact that lithographic papers are now so much better. He replied, 'It is the effort you started in 1928 at the Bureau of Standards . . . ' . . .

"One of our efforts—the Lithographic Trade School, has been running continuously since it opened last September. Students from 51 plants have attended nightly. . . . a total of 398 students with attendance of 82 per cent . . . For an educational effort six months old the results are very gratifying . . .

" . . . I am at this time proposing that we inject into the lithographic industry college graduates (chemical engineers preferably) selected either by the employer or through us . . . these men to receive, through a special course at our New York trade school, a ten weeks' intensive lithographic training, after which they would go into your shops as chemists, assistants to the superintendent, or to technical departments . . . A class must, of necessity, be limited to about 25 students . . . Places for six chemical graduates have been spoken for, leaving not over nineteen places to be filled . . . "

L. N. A. WINDOW DISPLAY SYMPOSIUM

The average lithographer, it seems, is reluctant to spend the time and effort necessary to obtain a practical *working* knowledge of the research report on window display circulation. In this respect, according to the speakers in the Symposium, he is not unlike advertising men and members of other groups that would benefit by a thorough understanding of just what the report is all about.

Part of this reluctance may be due to the lithographer's feeling that the thing for him to do just now is to "take the cash (from his well-established sales sources) and let the credit go" (meaning the future opportunities that would come with knowledge of just how to apply to his business the findings of the research).

Particularly stimulating, therefore, should be the following:



Excerpts from the address of
ARTHUR E. TATHAM
Advertising Manager, Bauer
& Black, Chicago

Most of the address by
ALBERT E. HAASE
which opened the Window
Display Symposium at the
L. N. A. convention. Mr.
Haase, former Managing Di-
rector of the Association of
National Advertisers, gives
an excellent summary of the
research.

Excerpts from the address of
FREDERICK L. WERTZ
President, Window Adver-
tising, Inc., New York

HIGHLIGHT RESEARCH SUMMARY

By **ALBERT E. HAASE**

WHAT you want to know about the recent research report on Window Display Circulation is, "What do I get out of it?" . . . Until you get that attitude you won't get anything out of it for a long time—and perhaps never; that is unless somebody else gets that attitude and does something about it and you eventually ride in on the road he built. . .

. . . It has been suggested that I give you today a highlight summary of the framework of the report and its findings in non-technical language. This I shall now attempt to do . . .

You will notice that there are five compartments in this chart, namely:

1. Windows
2. People
3. Circulation
4. Degrees of circulation
5. Application of findings.

These five simple compartments represent the five essential parts that constitute the framework of this report.

Let's consider them now in the order in which I have listed them.

1.—A Study of Windows

In eleven of the nineteen cities in which this research was made, all retail windows were inventoried; their sizes were measured and their position with respect to traffic noted.

National Projection of Findings:

The information obtained from this intensive study was projected on a national basis. Statistics in the Government's 1935 Census of Business were used as the basis of this projection. This step for the first time made it possible for business to have a reasonably accurate estimate of the number of windows available in the retail stores of the country.

Breakdown by Types of Outlets:

These estimates on windows of all retail outlets have been broken down into separate tabulations for major types of retail outlets such as Apparel, Cigar, Drug, Furniture, Grocery, Hardware, Radio.

For each of those types the report gives (1) the number of stores, and (2) an estimate of the window display space available in each of the types.

An example: For the first time a window advertiser can learn that

there are slightly more than 119,000 windows available in the 56,000 drug stores of the country.

Variations According to Population Size:

The number of windows available in different types of retail outlets vary according to population sizes of communities.

The report shows these variations for eighteen different population groupings starting with the lowest classification as 1,000 to 5,000 and ending with the group that ranges from 350,000 to 400,000.

Size Variations of Windows:

A study of sizes—i.e., length, depth and height—of windows makes it possible to picture the "average window" in the majority of retail outlets in the country.

This "average window," the report shows, is best described as a "rectangle" with an average net space measuring 6.9 feet long by 6.3 feet high by 4.1 feet deep.

Definite variations in size exist according to types of retail outlet. Information on those variations is given.

Windows Classified According to Traffic Exposure:

Windows of retail stores in test cities were also studied with respect to their exposure to traffic flow.

Analysis of the results show that all fall into one of the four main categories, namely:

1. Space which is parallel to traffic.
2. Space which is angled to traffic.
3. Space which is both angled and parallel to traffic.
4. Special types which do not fit into any of first three classifications.

2.—A Study of People — The Audience of Window Display

We have outlined the basic findings on windows of retail outlets. We turn now to an analysis of the findings of the audience that exists for those windows, *i.e.*, people as consumers.

The study of the consumer falls into two divisions, namely, (1) a static picture of the consumer which grades him according to the district in which he lives; and (2) a dynamic picture of the consumer according to traffic habits.

Distribution of Purchasing Power:

The static picture of the consumer which this study gives is in the form of maps which indicate where the population lives and where different degrees of purchasing power are to be found. The index used to determine purchasing power was the median rental value of homes.

Highlights on Population Distribution:

The following generalization can be offered on distribution of population and purchasing power.

Population is dense in the center of a city.

It becomes progressively less dense as it radiates from the center.

Consumer population when studied by residence is distributed in clusters or groups of houses.

Highlights on Distribution of Purchasing Power:

In the communities of the population size of those included in this study this report shows—

Areas of highest population density are areas of low buying ability. The highest per capita buying

ability is to be found in consumers living near the outskirts of a community.

The Consumer In Movement:

Traffic maps of consumers in movement in this study show that the travel habits of people are stable and that traffic patterns for different cities showed the same general type of movement.

The highlights of the traffic pattern are:

- (1) Pedestrian traffic occurs in substantial volume only in business districts. It terminates almost abruptly at the boundaries of a central business district. In residential districts it is almost negligible.
- (2) Automobile traffic is far more stable over a far greater portion of a community.

Information obtained on retail outlets and their windows, and on the consumer, were next related and studied.

Consumer Travel Habits Define Retail Districts:

Analysis of consumer daily travel habits and the location of retail outlets showed that daily habitual movements of consumer determine and define retail districts of a community.

The correct delineation and definition of these districts represents basic information for the evaluation of window display circulation as will be shown later.

Basic Types of Retail Outlets:

A market of appreciable size will have four basic types of retail districts which in this report are described by the following labels:

1. The Central Business District
2. The Secondary Business District or Districts
3. The Neighborhood Business District
4. The Outlying District or Districts

In smaller markets all of these four types are, of course, not to be found.

3.—Definition of Window Display Circulation

After the foregoing information on windows, retail outlets and the consumer had been obtained and analyzed, the next step was to determine

what portion of the total number of people in movement in a market had an opportunity to see a window display exhibit in order to define window display circulation. Study and analysis of this question led to the following conclusion:

Pedestrians walking on the sidewalk adjacent to the display space have the only full or uninterrupted opportunity for effective exposure. This class of traffic alone should be taken as the circulation base of window display advertising.

4.—Degrees of Circulation Intensity

From a breakdown of an inventory of information on windows of retail stores and of a traffic check of more than 2,000,000 people, a procedure was created which would enable an advertiser to select and verify window display circulation and to determine the cost of circulation and to be in a position to obtain varying degrees of circulation intensity.

The first step was to break down our inventory of all available window display spaces in eleven of the laboratory cities into the component business districts of each city. That is to say, in each laboratory city the available number of window spaces in each Central Business District, in each Secondary Business District, in each Neighborhood District, and in each Outlying District was exactly determined.

This done, it was found that the number of available spaces in these districts varied considerably. Some had an extremely small number of available spaces; some had an extremely large number.

Studies were next made to determine the smallest possible uniform unit of display spaces into which the various business districts could be divided. Field tests showed that the answer to this problem was "a rule of ten window display spaces." "Ten" in brief, by the way, has no inherent value. It was adopted as a convenient rule to obtain measured and uniform results. With this rule as a measuring rod, all business districts were then divided into what we shall refer to hereafter as "display districts." The term "display district" means any

portion of any Central, Secondary, Neighborhood, or Outlying Business District in which there are ten available window display spaces in any or all outlet classifications. For example, if there are ninety available spaces in a Central District, then that Business District would have nine display districts.

Checks made in a number of cities showed that through the application of the "ten space rule" (ten available window display spaces for each display district) the intensity and uniformity of distribution in all parts of the market could be assured.

Degree of Intensity of Circulation Can Be Measured:

After the "display district" had been established by "the rule of ten", the next step was to determine how an advertiser could correctly and easily obtain different degrees of *impression opportunity* for his displays.

Field work and analysis gave the information necessary for this step. Tests have substantiated the findings. Those findings show that an advertiser can obtain four different degrees of intensity of distribution for his displays. Those four degrees of intensity have been given the following designations:

1. Minimum; 2. Normal; 3. Second Intensity; 4. Third Intensity.

5.—Application of the Findings by Means of a Guide on Coverage and Cost

All of the findings of this study are summed up in a "guide" which enables an advertiser to know—for communities having population of 450,000 and under—

- (1) How many window displays he should have in that market according to degree of intensity of circulation desired.
- (2) How much that circulation costs per thousand.

There are many more details which could be given to you about this report. There are a number of qualifications which should be made with respect to statements which I have made regarding the findings of the report.

However, when we get into details and qualifications we begin to get

HOW CAN LITHOGRAPHERS SELL WINDOW DISPLAYS TO ADVERTISER?

Is Partly Answered by

FREDERICK L. WERTZ

AFTER explaining just how his organization, Window Advertising, Inc., is interpreting and applying the findings of window display research, Mr. Wertz answered in part the question that is of immediate importance to lithographers, "How shall we sell this medium to the advertiser?" Excerpts from the part of his address dealing with this question follow.

... In order to sell anything we must know the thing we have to sell. This means that lithography salesmen, installation salesmen and others promoting the medium must be so well informed that they can not only answer satisfactorily any questions that may arise, but can also show their prospects how to use the medium to the best advantage.

... The manner in which displays are to be used should be determined before the display is planned and created. A display to be professionally installed should be designed in a different manner and planned from

technical and cloudy. The first step is to get a clear picture of an outline of the report. That I believe I have given you. . .

Judging from past experience, only a handful of lithographers, advertisers and agents will understand the Window Display Report. That handful of lithographers, advertisers and agents will do something about it and they will benefit first and most because they know what to do.

Research work is hard. Doing something about it is harder. You have the hardest part of the job still ahead. The job can be lightened and the period necessary to put it over shortened when more of you work together.

an entirely different standpoint than one that is to be mailed out to dealers. A display that is to be used as a sales adjunct only for the purpose of pleasing the dealers, whether installed or sent to the dealers direct, takes different planning and execution.

There is more interest today in window display as an advertising medium than most of us realize. Last week one large advertiser said to me "Window display with us is not only an advertising medium, but a major advertising medium and we feel that we get more out of it than from any other advertising we do." This advertiser is spending more than \$350,000 a year on installed window displays. Another advertiser, who has never used window display heavily, is this year spending \$200,000 on installed displays as a direct result of the Window Display Survey.

Another advertiser is stepping up the cost of his displays in high-spot locations, spending eight to ten dollars per display where he used to spend three or four dollars, all because the establishment of definite circulation figures justifies the increase.

Unless lithographers, who have in the past created most of the window display material for advertisers, equip themselves and their salesmen with proper information and facts, and unless they offer the advertiser something more than just pretty pictures and fancy art work, it will not be many years before they find themselves in the position of merely bidding in competition on designs that have been created by some one else.

The opportunity is before us, but the selling job must be done, and no one factor in the window display business can do this job alone. I sincerely hope that some method of co-ordination can be worked out to the mutual advantage of all of us, as well as for the increased profit and low cost circulation that it will bring to the advertisers who properly use the medium.

EFFECTIVE RESEARCH "Spoon Feeding"

... I believe that you have in this research one of the most valuable pieces of promotion material for the lithographic industry which has been developed in a very long period of time in any medium or any field of advertising. I was sitting last night with a couple of you gentlemen and there was some discussion of presses. Presses are something I know very little about, but I heard these gentlemen talk of presses that cost \$35,000, and presses that cost \$60,000, and presses that cost \$80,000, and as I thought about that and considered the approximate cost of doing this job, I said to myself that you had bought a new piece of equipment and the job that faces all of us now is finding out how to get the money back for that piece of equipment.

If this money which has been spent had gone toward the purchase of a piece of tangible physical equipment, such as a press, you would not expect to get back from that your entire investment on the first order of material lithographed on that press. You would buy the press because you would expect that over a period of time you would use it to do work and that bit by bit you would collect back not only your investment, but a profit.

Something like that type of operation is, in my opinion, the way in which you are going to collect upon your investment in this research work. I think the research work is sound because you invested money in it, advertisers invested money in it, advertising agencies invested money in it, display installers invested money in it. Everyone has a stake; therefore everyone is in a position to use it together to their mutual profit. . .

... The results of this research work are going to have to be spoon-fed to the advertisers and the agencies and the people in your organization, and I suspect that you are the people who are going to have to wield the spoon. Since this report has been published, I can't state the number of representatives of lithographic con-

Will Nourish More Sales Said ARTHUR E. TATHAM

cerns who have been in my office, but there have been a lot. Only one of these men has mentioned the Window Display Research to me. He said he would like to come down and have it explained. No one has come in and said to me, "We have just done a big research job and here is something about it that is very important."

No one of these men could have walked into my office and hoped to explain the entire research to me or any other advertising manager, but if each of them had taken one page or one phase or one subject out of that report, studied it until he understood it and then told me the story of it, I would have twenty-five or thirty spoonfuls digested by this time. (I am assuming for this purpose that I didn't already know something about it.)

It seems to me that you have two jobs to do. Those two jobs are further research and the instruction of the advertising business in the use of the research, and they go hand in hand and they take, I believe, two forms: (1) individual research; (2) joint research. By research I mean that I think it will be desirable for each one of you to choose some phase of this report which seems particularly interesting and significant to you, and to study that phase, and in studying it you may find you want to make some further explorations, and when you have made those further explorations, you have collected a little fund of information on that subject which you will deliver to the industry. . .

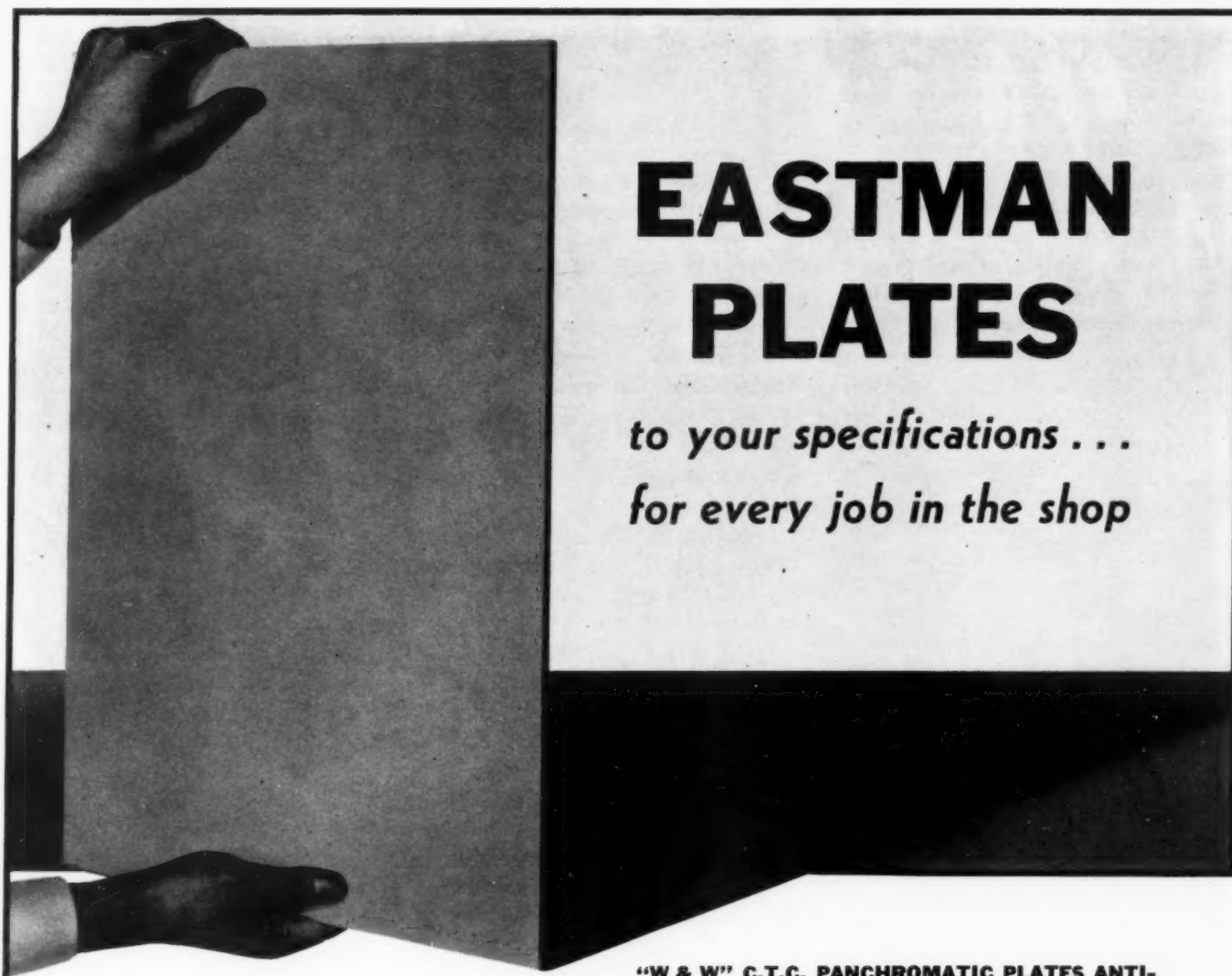
... The history of business is that any new idea, any new principle gets sold to the public and to the people who can use it very much faster if a lot of different people take a shot at it than if one person tries to do the job. My point is that if you jointly and individually do a promotion job on all or any part of this thing and do it for a year or two, there will still be

work left to be done. Don't be afraid that you or someone else in undertaking to do a promotion operation will unduly bring credit to yourselves. You don't need to worry about that. There is a teaching job to be done which can use all of the promotion and all of the study and all of the activities that all of you together can possibly do, individually and jointly, and my suggestion is, don't hesitate to do it.

We have said that there are two things to be done: One is further individual research on specific points; the other, the teaching of the findings to the people who can use them. How can you do that? That is your business more than it is my business, but I am going to have the temerity to make a suggestion of how I think I would do it if I were in your position.

I think if I were in your places, I would organize and appoint a clearing house committee, a committee to be the central clearing house for information and promotion and teaching of the findings of this study. I would have two reasons for doing that. First, such a clearing house committee will prevent you from contradicting each other and confusing the issue, by helping you to give a uniform interpretation of the findings. Second, such a committee can, if it is properly organized and run, provide each one of you with innumerable opportunities for promotional and teaching work, and the material to build these opportunities which will be of great value to you.

I said to someone yesterday . . . that in my experience, the men who sell most of the other advertising media, the people in the magazine field and the newspaper field, etc., have had their story, their over-all story, told so often that when they come to call on an advertising manager or agency buyer they are hard put for something new to talk about, and most of those fellows are searching and struggling and straining for a new angle, some new phase, no



EASTMAN PLATES

*to your specifications . . .
for every job in the shop*

STANDARD features of the largest Eastman plates (26" x 34" to 30" x 40") include 3/16" glass. In smaller sizes (8" x 10" up) you can have the same specifications on special order. And there is a specific Eastman plate to fit the requirements of every job that comes into your shop.

EASTMAN CONTRAST PROCESS PLATES ANTI-HALATION Color-blind, fine-grain, extremely contrasty. Quick-drying and especially adapted to dot etching.

KODALITH ORTHOCHROMATIC PLATES ANTI-HALATION Unsurpassed for negatives of extreme contrast on glass. Same beautiful photographic quality as in Kodalith Orthochromatic Film.

"W & W" C.T.C. PANCHROMATIC PLATES ANTI-HALATION For direct halftone separation negatives. Yield superior negatives because of their higher contrast and finer grain. Especially suited to dot etching processes.

"W & W" PANCHROMATIC PLATES ANTIHALATION Extensively used for continuous-tone negatives from objects or colored copy. High sensitivity, great uniformity, wide contrast range.

The real test for any plates is how they handle your work...in your shop. Order Eastman plates now from your Graphic Arts dealer.

Reproductions from Kodachrome

The modern trend to direct-color photography is greatly broadening the use of Kodachrome... and Eastman plates are ideal for making reproductions from Kodachrome originals.

EASTMAN KODAK COMPANY Graphic Arts Dept.
Rochester, N. Y.

matter how small and unimportant, from which they can talk about their particular advertising medium.

You are rather lucky. You have a whole bookful of angles that haven't been touched. Your competitors in the medium field are straining for one. You have a thousand of them lying there waiting to be used. I think there is, therefore, work for such a clearing house committee to do.

Talking very much offhand, I can think of things like these which such a committee might do. First of all, they could be the information bureau to whom you bring your ideas for promotional work for yourselves, to have these ideas checked and be sure you are not getting crosswise with the report. Second, they can develop and maintain a whole collection of promotional ideas and opportunities from which you can draw, if you don't happen to have a promotional idea of your own. Third, they can do a joint promotion job for you which can and probably should be done.

I could suggest offhand that your Association, through its clearing committee might design and produce a talking slide film, which is not a very expensive operation, which illustrates and explains as simply as possible the basic principles of this research as they apply to window displays as an advertising medium. I haven't the slightest hesitation in saying to you here today that if you produced such a film, you could have it shown in every advertising class in every university in the United States, simply by offering it. You could have it shown in 90 per cent of the advertising clubs in the United States, simply by offering it. Prints of the film and record are inexpensive, a matter of a few dollars. . . . The men who represent you people as salesmen could go to an advertiser and say: "Get together your sales manager and your president and a couple of other people and I will give you on a film, with accompanying sound, the basic story of this research, and I will do it in thirty minutes"—and you would get an audience.

That perhaps is not the right way to do it. That is an offhand suggestion. There is no reason why as a

Winners and Donors of Awards in L. N. A. Golf Events

FOLLOWING is the list of winners and donors of awards in the golf events held in connection with the L. N. A. convention:

Elliott D. Odell, Fawcett Publications, Radio Desk Set for Low Net of 18 holes, donated by Charles and Louis Traung of Stecher Traung, Rochester and San Francisco.

Mrs. Duke, Wichita, Kansas, Airplane Case for Women's Putting Contest donated by Mrs. Wm. Ottmann.

Mrs. O. H. Johnson, Chicago, Illinois, Clock, for second prize, Women's Putting Contest, donated by the Golf Committee.

J. M. Wolff, Jr., Wolff Printing Co., Drop Front Lunch Kit for Low Net 18 holes, donated by E. H. Wadewitz of Western Printing & Litho. Co., Racine, Wis.

G. W. Mathison, Michigan Litho. Co., Silver Hot Water Dish for Flag Tournament, donated by Walter A. Conlan of Crescent Colored Ink Co., Philadelphia.

Mrs. Marston, New York, evening bag for Women's Handicap Putting, donated by the L. N. A.

group it should not be sound for you people to join together and do a continuous direct-mail promotional campaign, perhaps one promotional piece a month, each of which takes one phase of this thing and explains it and builds it up and makes it understandable, over the name of the Lithographers National Association, supplemented by individual promotion from each one of you.

. . . I think you have something which is more valuable than anyone in this room today realizes. I think it has implications which go far beyond anything we are talking about now. I think you will find those implications, and as you find them I think you will discover that you have made a real contribution to the advertising business and that you are being rewarded for that contribution.

R. R. Heywood, R. R. Heywood Co., New York, Chinese figure for Low Net, 18 holes, donated by David M. Rapport of the Rapid Roller Co.

W. F. Carroll, Sinclair & Carroll, New York, Golf Bag and Clubs for the Browne Memorial Handicap, donated by Harris W. C. Browne of National Lithographers, New York.

N. T. Power, Stecher Traung, San Francisco, Snug Pack Case for Blind Bogey contributed by George LaMonte of the LaMonte Paper Co. of New York.

H. A. Merten, Strobridge Co., Cincinnati, dozen Glass Goblets, donated by George Madden, Kohl & Madden Ink Co., Chicago, for the least number of putts on 18 holes.

Milton Thwaite, Dennison Litho. Co., New York, silver vegetable dish for Low Net 18 holes, donated by John Devine of Fuchs & Lang.

A. S. Harris, Harris, Seybold, Potter Press Co., Cleveland, Liquor Set for Kicker's Handicap, donated by The Nylogs.

W. Y. Dear, Jr., Jersey City Printing Co., Jersey City, Silver Tray for Low Net 36 holes, donated by Gen. Wm. Ottmann, U. S. Printing & Litho. Co., New York, The President's Prize.

L. H. Jackson, Stecher Traung, Rochester, Paul Revere Bowl for best selected 18 holes of 36, donated by Jersey City Printing Co.

Magnetic, Impressive "Show Windows" for Your Products

—and right "on the main street" of the lithographic industry—will be provided at the annual convention of the

National Association of Photo-Lithographers

to be held at the Wardman Park Hotel, Washington, D. C., October 6-7-8.

Exhibit spaces are limited. Send now for exhibit agreement and more information to National Association of Photo-Lithographers, 1776 Broadway, New York, N. Y.



Cedric Bond

UNWATERMARKED



"Right Between the Eyes"

you will be struck by the exceptionally fine qualities of this paper —

**Pre-Humidified
and Made Expressly for
Offset Lithography**

Send for sample sheets and prices of Cedric Bond. They will tell you part of the story —

**Bright Blue-White Color
Unusually High Bulk—Extraordinary Opacity
Reasonable Price**

The other part of the story, concerning the excellent performance in production of this pre-humidified paper, you will learn when you use it for your own work.

Cedric Bond is Handled Exclusively by

Thomas Barrett & Son

Paper Merchants

402
West Broadway
Corner
Spring Street
New York

No rain checks when you use Cedric Bond—and no checks, either in fast, profitable production, rain or shine, hot or cold, when you use this paper. It is an all-weather paper because it is pre-humidified!

Telephone
Walker 5—
7560—7561

DIRECT ADVERTISING IS MIGHTY AID

TO RADIO ADVERTISING and Vice Versa

Says

E. P. H. JAMES

AFTER setting an impressive background of statistics demonstrating the phenomenal growth of the radio industry, E. P. H. James, Promotion Manager, National Broadcasting Company, New York, then told the Lithographers National Association at its annual convention of the many ways in which direct advertising—such as direct mail, window and counter displays, and novelty advertising—has played an important part in increasing the returns to commercial sponsors from their radio broadcasts.

In the sense that advertising has been one of the most important factors in the rapid growth of radio, it is noteworthy that direct advertising—much of it lithographed—has played a prominent part in making radio broadcasting so successful that most of the pioneer advertisers not only have continued it, buying every year an increased number of hours on the air, but a number of new advertisers go on the air every year.

One hundred and eighty-three advertisers sponsored 223 programs during 1937 on the two NBC networks, and 358 contests and offers were promoted on the programs of 164 of these advertisers. All of these contests and offers called for an immense quantity and a great variety of printed matter such as special letterheads, contest blanks, window streamers, display cards, etc. According to NBC's merchandising advisory staff, about 95% of NBC clients use some form of printed or lithographed material in the promotion of their radio programs and the sale of their products.

The following figures relate to the requirements for printed or lithographed material of only 65% of NBC clients during 1937 in connection with contests and offers:

Booklet Offers—17.5% made 45 booklet offers. Estimated quantity between two and three millions.



Promotion Manager
National Broadcasting Company

Cook Book and Recipe Offers—9% made 33 offers. Estimated quantity between one and two millions.

Special Tabloid Newspapers—Three advertisers made three offers. Estimated quantity one million.

Novelty Offers (Printed or Lithographed)—21% made 61 such offers. Estimated quantity eight to ten millions.

Road Maps—Four advertisers made five offers.

Such offers call for very specialized endeavor on the part of creative

lithographers and printers. The largest potential source of lithographing and printing sales in connection with radio exists in vitally important hook-ups with programs at point-of-sale, particularly through window and counter display material.

It is quite useful, according to Mr. James, to have authentic data on window display as an important advertising medium, but the sales results depend largely on the "copy", just as is the case with magazine and newspaper advertisements.

Radio offers the display designer an advantage over all other mediums because the use of pictures of radio personalities on window and counter displays helps advertisers to cash in on the intense human interest people have in radio stars. Here lies the big opportunity for lithographers and printers, according to Mr. James.

Mr. James went on to say that in his opinion broadcasting is one of the best salesmen of printing because it stimulates all the advertising of the program sponsor. Sixty per cent of all NBC advertisers make offers over the air and these offers, along with the many made over other networks and from independent stations, are responsible for the giving away each year of millions of booklets, pamphlets, and printed or lithographed novelties.

Practically every commercial announcement on the air is a direct or indirect stimulant of a demand for printed or lithographed material, claimed Mr. James, who said further that one of the most important elements of a good radio campaign is adequate point-of-sale tie-ups, which usually means lithography. In fact, as Mr. James demonstrated by several concrete examples, broadcasting is a great stimulator of dealer enthusiasm, and frequently makes dealers find room for displays they wouldn't otherwise be interested in.

"... broadcasting is one of the best salesmen of printing because it stimulates all the advertising of the program sponsor..."

MOLLETON

flannel

RUBBER BLANKETS

SEWN MOLLETON & FLANNEL COVERS

SEAMLESS MOLLETON & FLANNEL COVERS

DAMPERS . . . LEATHER ROLLERS

HAND ROLLERS . . . SCRAPER LEATHER

SEAMLESS FOUNTAIN ROLLER COVERS

ROBERTS & PORTER

I N C O R P O R A T E D

ESTABLISHED IN THE LITHO SUPPLY BUSINESS OVER FORTY YEARS

New York: 100 Lafayette St., Phone: CAnal 6-1646

Chicago: 402 S. Market St., Phone: WABash 6935

CANADIAN AGENT: CANADIAN FINE COLOR CO., 240 LOGAN AVE., TORONTO

BANKS, CUSTOMER RELATIONSHIPS AND THE LITHOGRAPHER

... Here are other headlines that bring us closer to your industry which produces for banking annually billions of checks and letterheads—all silent ambassadors to the public:

American bankers believe that public good will toward banking and all business is absolutely essential to recovery.

They are giving more earnest thought and effort toward this problem than to any other subject.

They are training themselves and their employees to render better service.

They are modernizing their equipment for the same purpose.

... Our imaginary headlines add up to this fact of great significance to your business, namely, banks are interested in public relations today and are looking for ideas. They are susceptible to sales arguments that might contribute anything toward the improvement of the bank's public relations.

... Your responsibility and opportunity lies in this preoccupation of bankers with their public relations problem. Your Institute of Bank Stationers' campaign has been of great value to bankers in an educational way. It has been admirably conducted and I know has attracted much favorable notice from bankers. As an educational job it is maintained on the same high plane as similar types of effort being made at present by the steel industry, the transportation industries, and others.

But you can go further and furnish banks with ideas to assist them in solving this problem and at the same time stimulate the use of checks and good quality stationery. . . .

... Continue your efforts to obtain facts about the bank market through research. This will keep you abreast of important changes and abreast of banking opinion on the things that you have to sell.

For example, 262 member banks of the American Bankers Association, each selected as typical from the

By WILLIAM R. KUHNS
Editor, "Banking" Magazine,
New York

These excerpts are from the address delivered by Mr. Kuhns to the Lithographers National Association at its annual convention.

They contain some worth-noting suggestions for solicitation of banks by lithographers.

standpoint of size, type of business and volume of check transactions of many others throughout the country, have recently cooperated with Banking in a study of checks.

... Almost 85 per cent of this group of banks mention faulty endorsements as the major reason, outside of insufficient funds and "no account" for the return of checks, but there is a sharp division of opinion as to the workability of any plan devised to cut down the volume of transactions of this kind. 134 express the opinion that specific endorsement instructions, printed on the back of checks, would aid materially in the solution of the problem, but 126 others are even more emphatic in their belief that the plan would not work. . . .

... There is a considerably greater variation of opinion as to the value of "personalized" checks as a builder of good will, a number feeling that the necessity for a charge destroys any other good will factors. . . In a number of banks, the opinion is expressed that an important by-product of imprinting is a decrease in the use of checks as scratch pads and note paper, because they cost their owners something.

... As nearly as can be estimated from available data, this group of 262 banks use a total of more than 400,000,000 checks a year. As their aggregate resources add up to about 8 per cent of all the banking resources

of the country, it seems reasonable to assume a total annual consumption of 5,000,000,000 checks by the banks of the country.

It would be a mistake to believe that the use of checks has reached its peak. Just before the Civil War the use of checks and money was about evenly divided. In 1900 the per capita use of cash was \$14.23, of checks \$113.77. In 1933 the per capita use of cash was \$39.80, of checks, \$306.20. With the popularization of checks now promised by the extension of privilege the volume of checks used should materially increase.

... Here are some things that banks could do in the interest of public relations; all would stimulate the use of lithographed products:

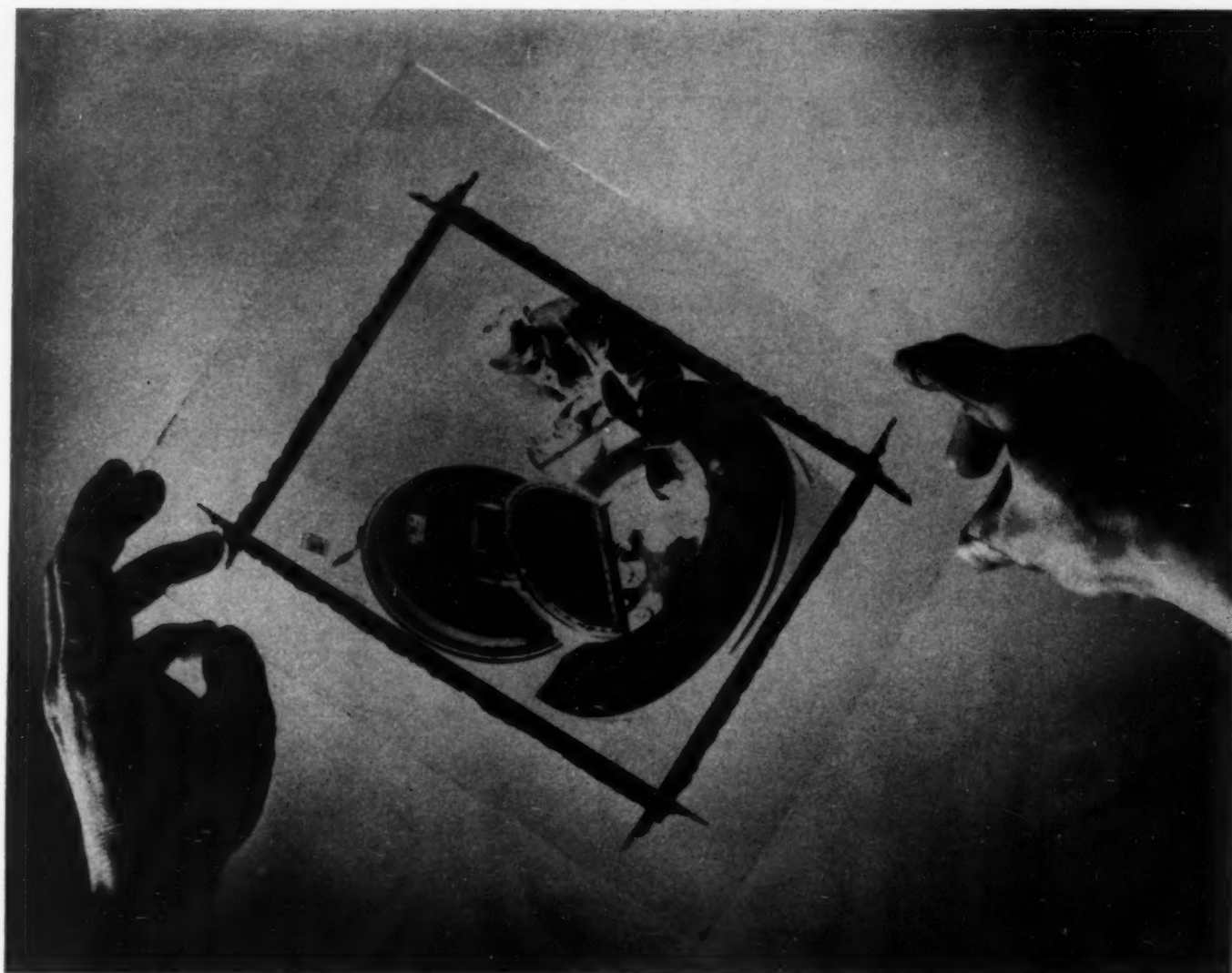
Use the mails in new business promotion in order to supplement individual contacts and cover a wider area than can be done by manpower.

Keep more constantly in touch with customers, depositors, stockholders and others by the use of the mails in the interest of promoting good will.

Banks mail, in the aggregate, millions of pieces of sales and public relations material a year. The value of this material would be materially enhanced if, wherever possible, it was accompanied by a letter, signed either individually by an officer or with some individual facsimile letters.

... The value of letters with circular matter is of course admitted by the majority of successful users of mail. Their more widespread use by banks might conceivably increase letterhead consumption and serve the cause of better public relations at the same time.

A program to push the use of individualized checks would be constructive. A move in this direction, to be successful, should point to the fact that banks could add modestly to their revenues by this means through being able to sell what is now generally given away. . .



Into every Negative enters

COPY · CRAFTSMANSHIP · CHEMICALS

To produce a finished negative of the better type, you need better copy, better craftsmanship, and better chemicals.

Merck Chemicals for the graphic arts are *better* chemicals—the kind that go a long way toward producing *better* results.

MERCK & CO. Inc. *Manufacturing Chemists* RAHWAY, N. J.

New York: 161 Sixth Ave., Philadelphia: 916 Parrish St., St. Louis: 4528 S. B'way

In Canada: Merck & Co. Ltd., Montreal and Toronto



WHAT is lacking in the inking system now employed on offset presses? Why do they deposit too much ink during the first revolution of the form rollers and not enough during the other revolutions? If offset cylinders were built without a gap and the design were continuous as in rotogravure presses and they printed to a web instead of separate sheets, then there would be no first revolution of the form rollers and no heavy deposit.

This leads us to believe that the trouble lies in the cylinder gap, and as we evidently cannot eliminate the gap on a detachable plate press, what can be done to overcome this trouble? To fill up this gap with a detachable segment is obviously out of the question due to the fact that with nothing to remove the ink from the segment, it would just load up with ink and neither take nor give off its supply at the time needed.

It is plain to be seen that the form rollers become overcharged while passing over the cylinder gap and that in order to reduce this overcharging to a minimum, the fountain setting is adjusted to a point that slightly starves the remainder of the plate, otherwise the design would tend to fill up across the front quarter of the plate.

The flow of ink from the fountain down thru the many rollers and drums that make up the ink dis-

Ink DISTRIBUTION

By C. W. LATHAM

tributing system, is continuous and cannot be stopped during the interval that the cylinder gap passes under the form rollers. Therefore something must be done to store up this excess ink and deliver it back to the form rollers later in the revolution of the cylinder.

So called storage drums and extra rollers in the distribution train will not entirely accomplish the desired result, because they merely lengthen the path that the ink travels on its way down. They do accomplish certain other results but have not enough effect upon this overloading.

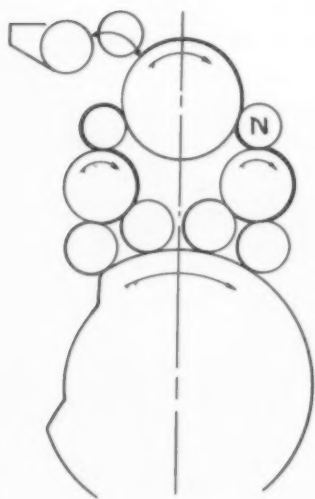
Something on the order of a receiver must be added to our present system to provide a place for the excess ink to go to until it is needed, and then deliver the ink back to the plate or form rollers during the starvation period.

Theoretically, the condition under discussion could be greatly reduced by adding rollers outside of the path of ink flow as shown in drawing (A)

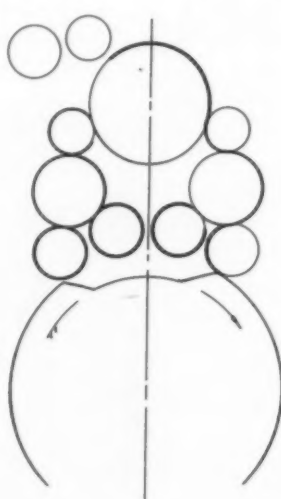
the theory being that at the cylinder gap, and also at the blank portions of the plate, the excess ink that flows to the form rollers, will be picked up by receivers (S) and when the form rollers were again called upon to deliver ink, they not only would have less excess ink to deliver on their first revolution but would have two sources of supply for the remaining revolutions.

Perhaps this idea has been tried out and perhaps it has not. If it has not, someone ought to, even though it has obvious drawbacks such as extra rollers, less plate surface exposed, a cramped condition between dampeners and inkers and roller setting difficulties.

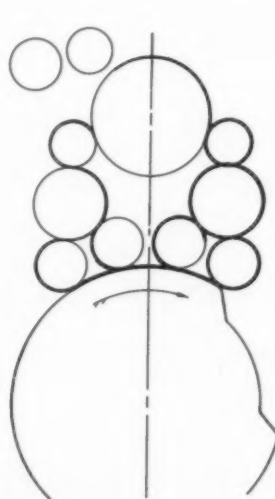
Still working on theory, perhaps some good may be accomplished by the method depicted in drawing (B) wherein the excess ink is first delivered to the plate in the usual way and then removed by rollers (R) and redelivered to the plate further back. The idea is that these rollers which have just delivered all of the ink that the plate is willing to receive, will be normally charged with ink when the gap passes beneath them. The next contact that they have with the plate will be in the overcharged area and the plate, having more ink in this area than the rollers, will deliver some of it to them, the rollers in turn become charged above normal, and will deliver some of this



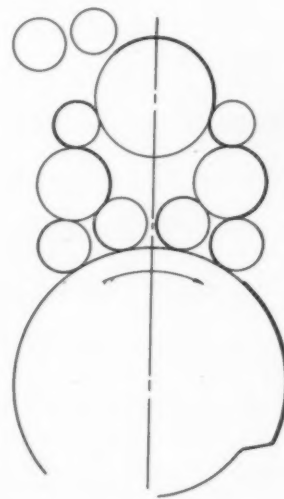
Simple ink distribution system with path of ink shown in heavy lines, from fountain to plate.



Showing how forms become overloaded at cylinder gap and give off some of their surplus ink to storage rollers.



After cylinder gap has passed under form rollers, these rollers deposit a great amount of surplus ink in their first revolution, as shown.



Showing beginning of starvation period, just after surplus ink has been deposited to plate, and very little storage left.



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NOT ANOTHER FISH STORY

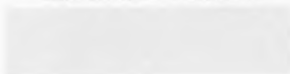
But a practical specimen of the effects it is possible to produce with F. & L. OFFSET INKS.

Brilliance, economy, elimination of lost press time, lasting properties, strength — all of the qualities necessary for the production of the job that assures repeat business.

Expose this specimen in your window and observe the fast-to-light properties of these outstanding colors.

LITHOGRAPHED ON A RUTHERFORD HIGH-SPEED OFFSET JOB PRESS

IMPERIAL YELLOW



CORONATION RED



NOBILITY BLUE



EMPIRE BLACK



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(ESTABLISHED 1870)

DIVISION GENERAL PRINTING INK CORPORATION

EVERYTHING FOR THE LITHOGRAPHER)

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(PATENT PENDING)

A new, novel, non-corrosive litho plate base.

Completely desensitizes the surface of the plate by creating on it a hygroscopic film which is grease-repellent.

Will not affect the finest work.

Improves the working qualities of the plate, insures a larger number of impressions and prevents scumming and tinting when the special fountain solution furnished for the purpose is used.

Cost of material required to prepare a plate of medium size is approximately two cents.

Suitable for Aluminum, Zinc and Stone.

MIRAC FOUNTAIN SOLUTION

This solution must be used in the fountain, as it works in harmony with **MIRAC Plate Base** and preserves the original surface created when the plate is first prepared.

A trial will convince you of the merits of **MIRAC** solutions.

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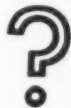
100 SIXTH AVENUE • NEW YORK, N. Y.

PHILADELPHIA LOS ANGELES SAN FRANCISCO FORT WORTH
BOSTON CINCINNATI CHICAGO CLEVELAND ST. LOUIS

A Question

for All Manufacturers and
Suppliers Who Want to Sell
More to Lithographers

Where can you get an audience of over four hundred employers, foremen, and key men in person from all parts of the country for a showing of your products . . . men interested enough to take the time and to pay for the chance to get together so that they can see and hear about new equipment and new ideas?



here's your answer:

at the
6th Annual Convention and Exhibit
of the
**National Association of
Photo - Lithographers**

Wardman Park Hotel, Washington, D. C.

October 6 - 7 - 8

Flash!

"Share Your Knowledge" will be the slogan to inspire the setting up of group clinics among the more than four hundred employers, foreman, and key men in the industry who are expected to attend the convention. Under competent leadership they will discuss equipment, supplies, and methods used in the industry.



The attendance of over four hundred at last year's convention is expected to be repeated this year. These leaders in the industry represent immense purchasing influence. They shape the buying policies of many lithographic plants that should be helping you to "up" your sales curves. Reach them with the story of your product when they are in the most receptive mood. Exhibit space is limited so—Send NOW for a display agreement and more information.

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

1776 Broadway

New York, N. Y.

L. T. F. MAKES REPORT

THE following reports for the Education and Research Departments for the year ending April 1, 1938, were submitted at the Annual Meeting of Members of Lithographic Technical Foundation, Inc., New York, held April 19, 1938.

EDUCATION DEPARTMENT

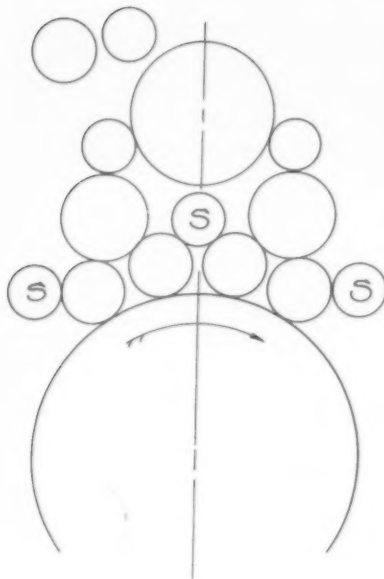
Due to the development of what is commonly referred to as our Trade School, the nature of the year's offerings differs markedly from those of last year's. Getting our new school started and keeping it going reasonably smoothly introduced problems, some of which still await solution. Everything considered, however, this first year of our new trade school was highly successful. In a later paragraph, information regarding some organizational changes to be effected next year will be found.

I. The Year's Offerings To the Industry

1. New York City	Enrollment
(a) Camera	
(1) Line..... (1 class)	12
(2) Half-tone.... (2 classes)	19
(3) Color Separation..... (1 class)	12
(4) Special (for Executives) ... (1 class)	10
(b) Color Correcting. (3 classes)	38

returned to the subnormal portion of the plate.

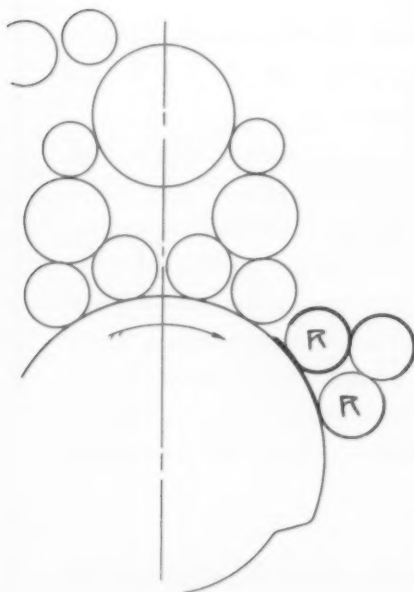
As mentioned before, this is all theory and the writer would like comments upon it. Perhaps some of our readers are in a position to make some experiments along these lines and here is a suggestion. On some job where the overcharging of the front part of the sheet is very noticeable, remove the intermediate roller (N) drawing (1) that feeds the drum supplying the last two form rollers and see if this theory shows any promise of being on the right track. If any good symptoms are noted it may be worth while for some press builder to perfect the idea.



Drawing A—Showing extra storage rollers "S" placed outside of ink feed stream.

charge to the portions of the plate that are below normal in ink.

Perhaps this line of reasoning has not been presented clearly enough to follow, but a study of the drawings (A) and (B) should give a graphic idea of how the ink film descends to the form rollers, and then to the plate; how it is picked up by the re-distributing rollers (R) and then



Drawing B—Showing auxiliary storage rollers picking up excess ink from plate which they will deposit further back in starvation area.

(c) Offset Press	
(1) (For Apprentices and Rehabilitates). (3 classes)	45
(2) Special (for Executives)..... (1 class)	13
(d) Plate Making..... (4 classes)	39
(e) Stripping..... (2 classes)	20
(f) Estimating..... (2 classes)	32
(g) Management in Lithography..... (1 class)	30
(h) Science of Photo-Lithographic Processes..... (1 class)	16
(i) Selling Lithography..... (2 classes)	21
(j) Technological Features of Lithography..... (1 class)	61
	— 368

All of the above courses have been developed by and offered under the direct supervision of the Lithographic Technical Foundation. In cases two to six inclusive of the following, the Foundation has assisted either by promoting the development of the work or by providing teaching material, or both.

2. Baltimore—Ottmar Mergenthaler School	
(a) Evening (Camera and Plate Making).....	23
(b) Day.....	6
3. Buffalo—Burgard Vocational High School	
(a) Evening (Camera, Plate Making and Press).....	20
(b) Day.....	213
4. Chicago—Chicago School of Printing	
(a) Evening (Camera, Press and Plate Making).....	47
(b) Day.....	12
5. Rochester—Edison Technical and Industrial High School	
(a) Evening (Camera, Plate Making and Press).....	24
(b) Day.....	88
6. Cooperative College Engineering Work	
(a) Drexel Institute, Philadelphia.....	12
(b) University of Cincinnati, Cincinnati.....	18
7. Chicago—	
(a) Amalgamated Lithographers of America (Art, Camera, Plate Making and Press).....	42
(b) Washburn School.....	
8. Cincinnati—Ohio Mechanics Institute.....	69
9. New York—Murray Hill (Evening) Vocational School (Press).....	25
10. San Francisco—Humboldt (Evening) School (Theoretical courses only).....	60

— 659

Grand Total.... 1027

THE PHOTO-LITHOGRAPHER

94%

of the
Literature

Distributed at These Two
Shows can be Folded on the

CLEVELAND "DOUBLE-O" FOLDING MACHINE

234 Pieces of Literature Collected

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219 Pieces Come Within "Double-O" Range

FOLDING, as you know, is an Important Operation in the production of Modern Advertising Literature.

The Folding Machine that makes the great variety of folds that present-day Direct Advertising requires, will aid you in procuring this desirable and PROFITABLE class of printing.

The MODEL "DOUBLE-O", with its 3 Folding Sections and 9 Folding Plates more than provides for the great variety of folds. Its 4 x 5" to 22 x 28" Sheet Size, covers the size range. Its high speed — **THE FASTEST FOLDER BUILT** — assures **LOW COST** per 1000 folded copies.

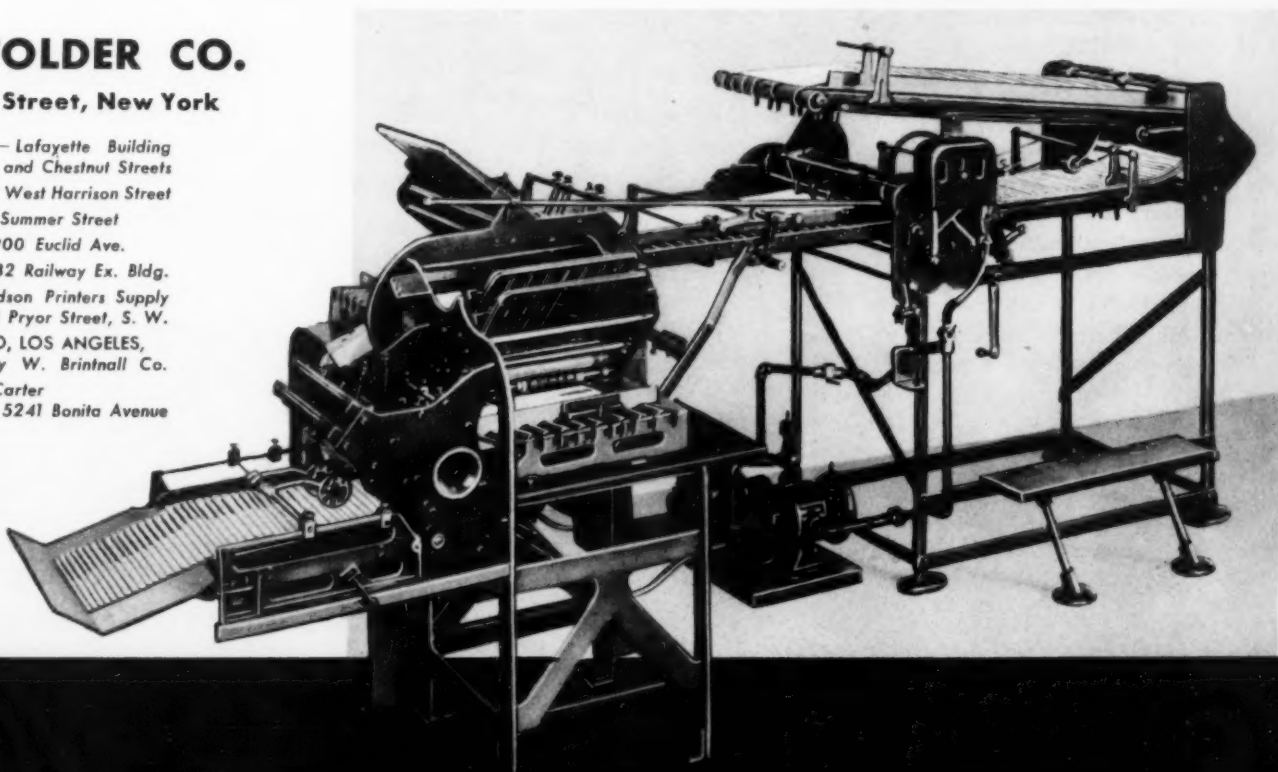
A Model "Double-O" installed in your plant gives you Variety, Speed, Accuracy, Convenience . . . Also it makes Folding one of your most PROFITABLE operations. Ask for "IN STEP WITH THE TIMES." It gives you much valuable folding information.

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Co., 231 Pryor Street, S. W.
SAN FRANCISCO, LOS ANGELES,
SEATTLE — Harry W. Brintnall Co.
DALLAS — J. F. Carter
5241 Bonita Avenue

THE CLEVELAND
Model "Double O"
Folder with contin-
uous feeder.
Powered by Kimble.



II. Our Obligations

(The following are in addition to those reported in 1937 as having been specifically incurred in connection with our new Trade School)

A. For Equipment

1. Arvey Corp.
2. Philip M. Bainbridge
3. Eastern Lithographers Assn.
4. Wm. Gegenheimer, Inc.
5. Ideal Roller Co.
6. Local No. 1, New York City
7. Macbeth Arc Lamp Co.
8. Taylor Instrument Co.
9. U. S. Prtg. & Litho. Co.
10. Zarkin Machinery Co.

B. For Materials

1. Agfa Ansco Corp.
2. Brett Litho. Co.
3. Clarke & Co.
4. R. J. Fitzsimons Corp.
5. Gevaert Co. of America
6. Hilo Varnish Corp.
7. International Paper Co.
8. Kindred-MacLean & Co.
9. LaMotte Chemical Products Co.
10. Marquardt & Co.
11. The Mead Corp.
12. Passantino Printing Co.
13. Harold M. Pitman Co.
14. Pope & Gray
15. Rossotti Litho. Co.
16. Trautmann, Bailey & Blampey
17. West Virginia Pulp & Paper Co.

C. For Services

1. Alco Gravure Corp.
2. Carrier Corp.
3. Consolidated Litho. Corp.
4. Daily News
5. Dufay Color, Inc.
6. Huebner Laboratories
7. Latham Litho. Co., Inc.
8. Lithographers' Journal
9. Lithographers National Assn.
10. Lowe Paper Co.
11. National Lithographer
12. National Process Company
13. Palm, Fechteler & Co.
14. The Photo-Lithographer
15. Frank A. Randt
16. Sackett & Wilhelms Corp.

III. Next Year's Program

Our basic trade school offerings for apprentices and rehabilitates will remain unchanged except as to quality which it is expected will be measurably bettered because of improved methods of organization. Among other things, certain class sessions are to be devoted to the consideration of the theoretical and scientific aspects of lithographic practices. To this end, instructional units covering all trades will be laid out and developed during the Summer.

The practical courses for executives, offered for the first time this year, will be continued in somewhat modified form. And if enough interest is manifested, "trouble shooting" courses for journeymen, announced but not offered this year, will be developed and offered.

Our original ambition that the Trade School be of service to the industry nationally rather than merely locally has not waned. Accordingly, if and when economic conditions seem to warrant such action, a ten-month's day school to serve that purpose will be established. With such superior facilities at their disposal, the lithographers of the United States and Canada can ill afford not to make full use of them. No one thing, we have good reason to believe, would please the manufacturers more than to see the equipment they so generously provided in constant use.

Consideration has been given to the development of a trade school program for providing selected engineering college graduates with the practical experiences so often denied such men when they enter lithographing plants. It is hoped and believed that arrangements can be made which will result in providing the right type and number of technical men to the industry.

Upon the completion of the present series of Technological sessions, the 1937 (5) lectures and those of this year (4) will be assembled and published in book form.

Respectfully submitted,

D. J. MacDONALD,
Educational Director

RESEARCH DEPARTMENT

REPORT FOR THE YEAR ENDING
APRIL 1, 1938

PROGRESS DURING THE YEAR

Lithographic Papers

The fifth report of research on lithographic papers at the National Bureau of Standards was published as Research Paper No. 1054, Bureau of Standards Journal of Research, December, 1937. Reprints of this report were sent to subscribers on

February 28, 1938. A new test for the sensitivity of offset papers to changes in atmospheric humidity is described, together with the apparatus required.

Progress is being made in studies of the rates of change in temperature of paper in the pile, and of the effects of lift thickness and air circulation on the rate of conditioning of paper by hanging. This work is being made possible through the contributions of the following firms:

The Beckett Paper Company
The Martin Cantine Company
The Champion Paper & Fiber Company
Everett Pulp and Paper Company
W. C. Hamilton & Sons
Harris-Seybold-Potter Company
The Mead Corporation
Watervliet Paper Company
West Virginia Pulp and Paper Company
York Ice Machinery Corporation

The Paper Hygroscope

The Paper Hygroscope was first offered to the trade seven years ago and is now in use in more than 100 shops. Excellent reports have been received regarding its value in the prevention of paper troubles.

Since the research at the Bureau of Standards has brought to light new information on methods of paper conditioning, it was found necessary to revise the instructions for use of the Paper Hygroscope. The new instructions are given in Technical Bulletin No. 1, "Modern Paper Conditioning Methods and the Paper Hygroscope," issued to subscribers November 1, 1937.

The Register Rule

A number of Register Rules have been purchased by subscribers and reports continue to indicate their great value in predicting and enabling the removal of possible causes of misregister. These rules are now available for immediate delivery.

Deep-Etched Plates

Research Bulletin No. 10, "Deep-Etched Lithographic Plates Directly from Negatives," was sent to subscribers on October 12, 1937. This process enables stock negatives, originally designed for making albumin plates, to be used directly in preparing deep-etched plates. It has the advantage of avoiding the masking

**To
insure**



Disintegration and swelling tests, some of which are shown in this picture, are being conducted constantly in the Vulcan Laboratory.

economical and trouble-free offset blanket service

Every important step in the manufacture of Vulcan Offset Blankets — from raw materials to final inspection — is supervised by the Vulcan Research Laboratory. That is one reason why Vulcan Blankets have maintained their position of leadership in this field for so many years.

In metal decorating, for example, the Vulcan Red Blanket is used almost universally. Every big metal decorator in the country, with one exception, uses Vulcan Blankets. Originally developed especially for printing on metal, the Vulcan Red Blanket is widely used also as an all-purpose blanket.

Other Vulcan Offset Blankets include the popular new No. 43 Blanket for multi-color work, commercial offset printing, photo-offset, and particularly for work in which close register is required. This blanket is entirely free from swelling and tackiness — does not emboss, deboss, or stretch — and gives long and economical service on all kinds of offset printing on paper stocks.

Write for printed matter on Vulcan Offset Blankets and Litholastic Inking Rollers. Please address Vulcan Proofing Company, First Avenue and 58th Street, Brooklyn, N. Y.

***Vulcan* OFFSET BLANKETS and LITHOLASTIC ROLLERS**

necessary when positives are used for combination plates, and also the stopping-out of unexposed borders. Other advantages are that it is possible to use half-tone negatives made direct from copy after correction by either dot-etching or staining, or both. Plate making is somewhat more expensive by this method than when positives are used, but for certain classes of work economies in the photographic department more than balance the increased cost.

Albumin Process

Supplement No. 1, to Research Bulletin No. 6, "The Albumin Process of Photo-lithography," was also sent to subscribers October 12, 1937. This supplement contains changes in recommendations with regard to plate and water-fountain etches based on practical experience gained since publication of the original bulletin.

Dot-Etching

An extensive study of dot-etching processes was completed during the past year and Research Bulletin No. 11, "Dot-Etching on Dry Plates and Films" was issued October 22, 1937. In this bulletin the various dot-etching processes are reviewed and a report is made of experimental results with different types of photographic emulsion, with camera and contact positives, and with various dot-etching agents. The control of development and fixation, and the dot-etching operation are discussed. A section entitled "Summary and Instructions" gives working information for the photographer and dot-etching artist.

Miscellaneous Progress

Arrangements for commercial manufacture of the Inkometer were made in September, 1937. The necessary development engineering has been done and the first instrument is nearing completion. After the necessary comprehensive tests for performance, the Inkometer will be placed on the market.

Research on the drying of lithographic inks was started in September, 1937. This research has been made possible with the establishment of a graduate fellowship by the

Sinclair and Valentine Company through its President, Mr. R. R. Heywood. An additional fellowship has since been established, starting in September, 1938, by the same donor, which will enable this important research to proceed more rapidly.

Considerable progress has been made in the development of an integrating light meter for the more accurate control of exposures in the camera, printing frame, and photo-composing machine. This instrument sums up the actual illumination, regardless of time, and enables exposures to be made which represent accurate light dosage. It is planned to have this light meter supplied commercially.

Future Research

No change has been made in the research program for the coming year. This program provides for research on the following projects:

1. Improvement of printing surfaces.
2. Improvement of offset papers with regard to register.
3. Investigation of the factors affecting drying of lithographic inks.
4. (a) Study of half-tone process photography.
(b) Study of color photography and reproduction.
5. Standardization of plate grain.

Active work is in progress on printing surfaces, offset papers, the drying of inks, and half-tone process photography. A preliminary study of ink rollers is also being made.

Service

The publication of Lithographic Abstracts in the National Lithographer, Lithographers' Journal, The Photo-Lithographer, and the Mid-western Lithographer, has been continued. About 300 abstracts appeared in each of these journals during the year. Fifty-five inquiries regarding particular abstracts, and twenty-nine requests for photostat copies of the original articles were received. Seventy-four inquiries regarding Foundation publications were also received.

Although the Research Depart-

ment conducts no research on individual shop problems, it endeavors to give helpful advice upon request. Such requests numbered one hundred ninety-eight, as compared with one hundred thirty-five received during the previous year.

Staff and Equipment

There have been no changes in the regular laboratory staff. Two graduate students have been added for research on the drying of inks, and on lithographic rollers. Student assistants working on National Youth Administration funds, have been used for cleaning and routing work.

A 40 x 60-inch graining machine has been donated by the McKinley Litho Supply Company, and forty reams of 55-pound offset paper have been presented by the Beckett Paper Company.

There were eighty-five visitors to the laboratory during the year.

Respectfully submitted,
ROBERT F. REED,
Research Director,

A.I.G.A. President Reports Active Year

At the 24th annual meeting of The American Institute of Graphic Arts, held in New York on May 19, the president, Henry W. Kent, reported that the last year was one of effective and successful activities, including traveling exhibits of commercial printing; publication of a widely-read News Letter; and the Trade Book Clinic.

Said President Kent: "... The belief of the present day that good and beautiful things need not be placed beyond the possession of the many—*should* be placed within the reach of all—finds expression in the aims of the Institute to encourage the practitioners of the graphic arts to produce the best and the buyers to know the best. ..."

A number of lithographers have taken advantage, through membership, of the opportunity afforded them by the Institute to participate in the Institute's work in encouraging among laymen, as well as members, a deeper appreciation of the best in the graphic arts.

Consider Equipment with Distinctive Advantages

Wesel Plate-Coating Machine

(Right)

• This machine has an automatic *air-circulating* device that attracts no dust from outside. *A distinctive advantage.* Requires no extra motor for that purpose. Keeps the warm air *uniform and in constant motion*,—a factor insuring speed, consistency and cleanliness.

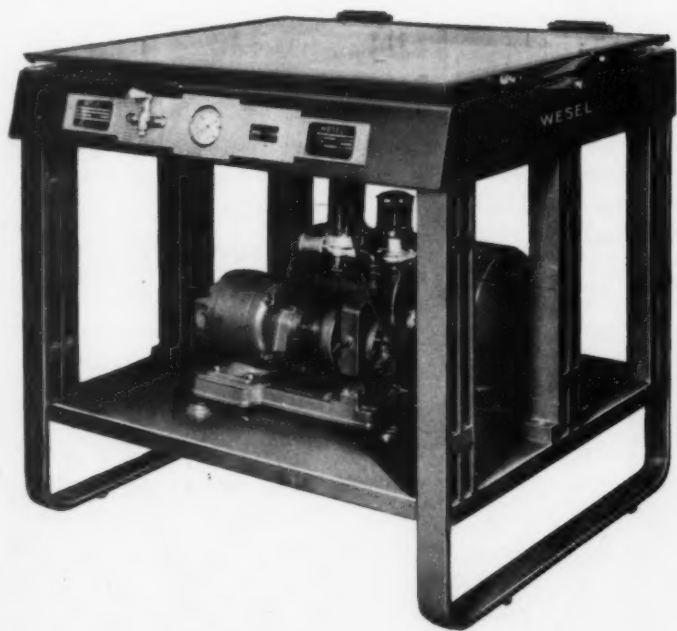
Driven by direct-connected, geared-head motor for positive and constant speeds, controlled by variable speed regulator.

In addition to the copper washing spray with automatic cut-off, this machine is fitted with a perforated copper spray pipe for cleansing the housing.

Aluminum Alloy revolving table; rustless alloy steel drum (*not tin*); ballbearing construction; adjustable legs; convenient drain connections; pilot light, etc.



Made in all Standard Sizes



Wesel Automatic Vacuum Printing Frame

(Left)

• This unit has several distinctive advantages. The *automatic vacuum control* saves over two thirds of the electric current. This one advantage makes the most popular machine we have ever designed. Over a thousand are in use!

Vacuum contact may be had in two to three seconds. And there are no hooks, clamps or fastenings. The new "quartz crystal" glass *permits 25% faster exposure*. Motor and pump are built into one integral unit, the metal base of which is supported on a series of compression springs, eliminating all noise and vibration.

Entire mechanism operated from one central control panel. Nothing to get out of order.

Made in Two Standard Sizes

WESEL MANUFACTURING CO. • SCRANTON, PA.

NEW YORK
11 W. 42nd Street

CHICAGO
201 N. Wells Street

SAN FRANCISCO
431 Clay Street

MONTREAL
637 Craig Street West

NEW RUTHERFORD DISPLAY ROOMS OPENED

ANY lithographer located in or visiting New York will miss one of the finest working displays of lithographic equipment if he fails to visit the new display rooms of the Rutherford Machinery Co., Division General Printing Ink Corporation, at 100 Sixth Avenue.

The new display rooms were opened on May 4 with a luncheon and demonstration for the press. The purpose of the demonstration was to show the process of offset lithography from the customer's copy to the completion of the job.

Starting with the copy, the Rutherford Photo-Lettering Machine was used to reproduce the lettering and type matter, normally done by hand.

Then a multiple negative was made on the Rutherford Precision Camera. It was shown how the negative could be located in centre and then, by using an automatic shutter, stepped and repeated the required number of times.

After the negative was developed, the Vacuum Frame and Whirler were the subject of a short demonstration.

The next step was to prepare the press plate on the Rutherford Precision Photo Composing Machine. The negative, made in the Camera,

Rutherford
Photo-
Lettering
Machine



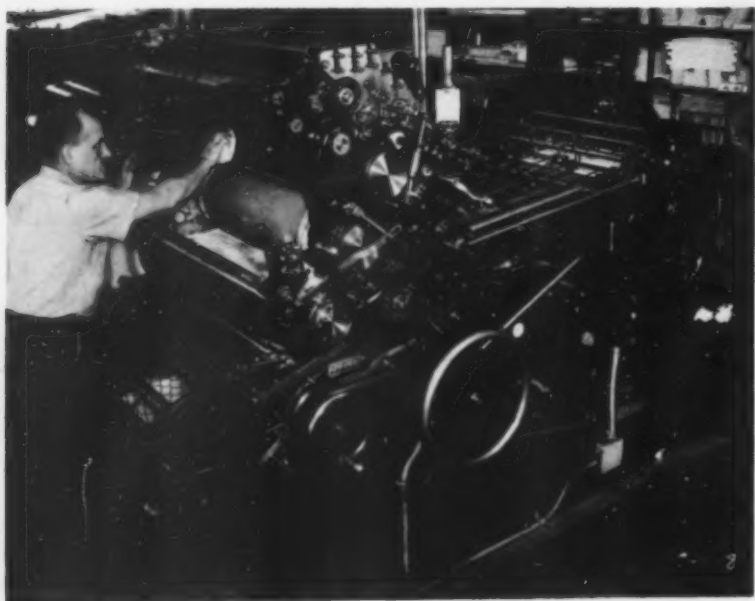
Photo-lettering is a new process by which photographic images of individual letters and designs are composed into words or patterns upon sensitized film, paper or dry plate. Machine is designed to handle composition of the type that would ordinarily be hand lettered, hand engraved or hand set. It photographically assembles letter images (or ornamental units), composing them into a finished photographic plate of the entire composition. The photo-lettered film or picture can be used to make offset press plates, zinc line cuts, steel and copper intaglio plates, or gravure cylinders.

was placed in the machine and stepped up on the press plate. It was demonstrated that due to the Composing Machine's many safety features, it is practically impossible for an operator to make a mistake. The arc lamp could not be turned on until

vacuum was secured, and once this was done, all electrical controls were immediately cut off so that plate could not be accidentally moved, which would spoil it.

The plate was then developed, placed on the Rutherford High-Speed Offset Job Press, and sample sheets run off.

Rutherford
High-
Speed
Offset
Job Press



Photographic Illustrators Adopt Code of Ethics

The Society of Photographic Illustrators, Inc., New York, which includes in its membership some of the leading illustrators producing photographs for advertising purposes, has adopted a code of ethics, designed to correct some of the abuses in its field such as: Vague specifications as basis for rejection of work, or reduction of price; speculative work; a low price on one picture, to be made up on subsequent work; changes made without charge on work that conforms to original specifications.

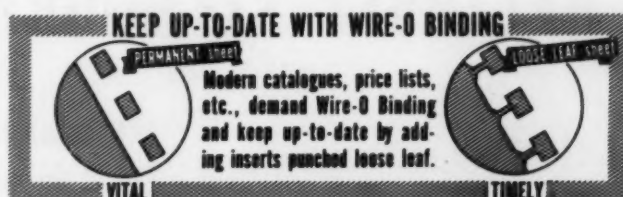


the **PUNCH** and **TIMING**

Eight—nine—ten—the Winner! It wasn't any wild haymaker; just consistent, well-timed punches that made it possible to come out of the ring a champ . . . Sales figures have their consistent winners too, because of *the right punch for perfect timing*. The Loose Leaf Punch of Wire-O Binding!

Consider the value in increased sales when a catalog and price list never become obsolete because of this one feature of Wire-O Binding—*loose leaf punching of additional sheets for 10-second insertion*. Send out your latest prices, newest models, additional corrections, so that they may become a permanent part of the sales display book. This up-to-the-minute information keeps a catalog ever fresh, and literally years are added to the useful, productive life of the volume. The PUNCH for Loose Leaf gives TIMELINESS to the larger investment which is the catalog in its original form without additions and corrections. You save money, and increase sales at one and the same time.

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Lanston Report Covers Year of Active Progress

THE annual report of the Lanston Monotype Machine Company for the fiscal year ended February 28, 1938, which was presented at the annual meeting on May 5, showed a net profit for the year of \$220,373.91. This compared with the previous year as follows:

Increase in taxes and tax reserves, \$13,639.67; increase in reserves for depreciation and amortization, \$8,931.58; decrease in net profit, \$19,191.40.

With Lanston taxes increased 43 per cent during the last two years, for each dollar paid to stockholders in dividends, 62 cents have been paid in taxes.

Paying quarterly, the Company distributed dividends of \$209,023.80 for the year, amounting to \$4.00 per share on outstanding stock.

The following extracts from the report cover some of the substantial improvements and new developments initiated or furthered by Lanston during the fiscal year recently ended:

"Plant Improvement"—During the year the Company invested \$96,438.21 in new machinery. Factory departments were relocated to increase manufacturing efficiency. Engineering and experimental departments and tool rooms for the making of gauges, tools, jigs and fixtures were enlarged and improved.

"New and Improved Products"—Engineering progress is being made on important new improvements to the Monotype Composing Machine. Development work is now finished or in process on additions to the Monotype-Huebner line of Photo Mechanical Equipments. These include the new Universal Process Machine for making multiple negatives, scribing lines for ruled forms and making test proof plates. The new M-H Vacuum Back for use with the M-H Overhead Camera is in manufacture. Engineering and tool work for the new Figuring-Listing Barrett Adding and Calculating Machine has been completed and this machine is

now in factory production. Sales response is most encouraging.

"New Type Faces"—At no time in the history of the Company has our matrix manufacturing department been so busy on constructive work as during the past year. Not only have a number of entirely new faces been produced in composition and display sizes, but the work of cutting additional odd sizes of existing type families has gone forward at a pace never before equalled. The cutting of special characters of various kinds in sizes for machine typesetting and hand composition for Monotype customers has been exceptionally heavy.

"The outstanding achievement of the year was the completion of the Monotype Twentieth Century Family—a sans serif design of sound construction, which is having extensive use by Monotype owners. This family now consists of roman and italic versions in Light, Medium, Bold and Extrabold weights, a Medium and an Extrabold Condensed

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and Extrabold Condensed Italic, three of these versions being entirely new and exclusive Monotype designs, by Sol Hess, Monotype Associate Art Director.

"The addition to the Monotype Stymie Family of new weights and versions, some of which were added during the past year, and the completion of the Twentieth Century Family give to each of these popular groups eleven different series—the most complete sans serif and square

serif type families now available from any source.

"For this year a comprehensive program involving a great deal of work has been planned. During recent years it has become increasingly evident that typographers and printers like their types in complete families, and it will, of course, be our purpose to give to users of Monotype machines access to every needed typographic facility."

Sinclair and Valentine Establish Fellowships for Ink Research

Fundamental research on lithographic inks is being made possible by the Sinclair and Valentine Company through the establishment of two graduate fellowships at the University of Cincinnati. These fellowships enable outstanding graduate students to conduct scientific investigations in the research laboratory of the Lithographic Technical Foundation as part requirement for advanced degrees in the University.

The first of these fellowships was offered in 1937 and was awarded to Leonard C. Cadwell, a graduate of Kenyon College. Mr. Cadwell has been reappointed for the year 1938-39. The second fellowship was established this year and has been awarded to Clarence S. Coe, who will graduate from The Rice Institute in June, and will begin his studies at the University of Cincinnati in September.

The investigations so far have been concerned with the fundamental nature of the drying of inks. It is believed that when this phenomenon is better understood, manufacturers of lithographic inks will be enabled to eliminate many of the difficulties commonly encountered by lithographers, such as incomplete and delayed drying, and set-off. The results of this research will be published in due time in Foundation bulletins.

Waterfalls Picture Paper Takes a Bow

Waterfalls Picture Paper, made by Waterfalls Paper Mills, New York, to fill a growing need for an uncoated paper suitable for many reproductive processes, is presented in an attractively novel way in an elaborate Wire-O bound portfolio recently issued. The portfolio contains specimens of Waterfalls Picture Paper in a wide range of weights, colors, and finishes, with illustrations done by lithography, letterpress, planogravure, sheet fed gravure, and roto-gravure.

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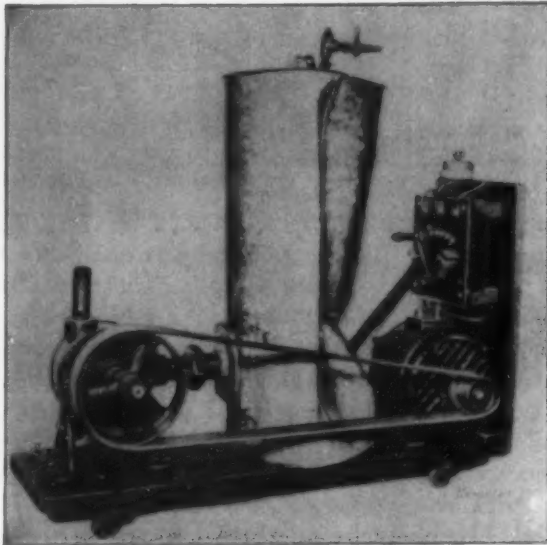
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Enclosed stud in piston holds wing close to cylinder at top, preventing loss of air pressure or vacuum.

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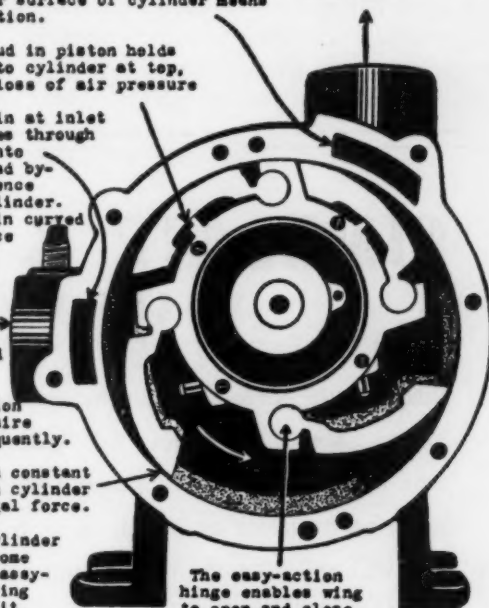
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A. B. SMITH TO BARRETT & SON

Allen B. Smith has been appointed sales manager of Thomas Barrett & Son, well-known paper merchants, New York, and will have direction of its sales policies in the future. He has had a wide and varied experience in the paper business, having been with the Sales Department of International Paper Co. for nine years, three of which were spent in their Philadelphia sales office.

For the last five years Mr. Smith was assistant to the sales manager of Coy Hunt & Co.

Thomas Barrett & Son, founded in 1873, is one of the oldest houses in the paper business today. The firm is headed by Nicholas J. Barrett, whose father established the business.

Among its many new activities the company will specialize in various grades of paper particularly adapted for lithography. It has just brought out a new bond paper, Cedric Bond, which, according to some present users, has all the characteristics required for a desirable planograph

bond. It is pre-humidified, carefully manufactured, and, as reported by some lithographers who have tried it, it gives excellent pressroom performance.

New Goerz Catalog

A new catalog covering Anastigmat Lenses for professional and amateur photography, photo-engraving and movie-making, also accessories used by people in these branches of picture-taking, has just been published by the C. P. Goerz American Optical Company, New York, well-known builders of Goerz Photo-Lenses in America since 1899.

Among the lenses listed is the famous wide-angle Dagor Double-Anastigmat, which made its debut in the photographic world forty-six years ago. Other lenses, all made in their New York factory, include the Super-Dagor, Dogmar, Apochromat-Artar, Gotar and Kino-Hypar.

The catalog also contains a description of movie-camera accessories, such as effect and trick devices.

Morrill Chart Is Popular



The tremendous demand for their colorful telephone chart has led to the issuance of a second edition in double the original quantity by the Geo. H. Morrill Co., Division General Printing Ink Corporation, New York. The new chart should be of even greater interest because of the addition of new colors and a table of characteristics printed on the back.

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ACCOUNTING—TAX QUESTIONS

Conducted by HERBERT H. LEVESS, C.P.A.

Q. What is the New York State franchise tax and how is it computed?

(Editor's Note—The answer to this question may be of help to those corporations whose years end between March 1st and June 30th, and also to corporations that are now in process of organization.)

A. New York State imposes a franchise tax on domestic corporations for the privilege of doing busi-

ness for each year beginning November 1st. Although the law calls this tax a franchise tax, it is in reality an income tax as will be seen from the base used in computation.

The annual return is filed on Form 31T and is due on or before May 15th. The tax paid will cover the year beginning the following November 1st. Where a corporation files its federal income tax return for a fiscal year

We have arranged to have Mr. Leveess answer in this column questions on accounting and taxes which readers would like to submit. Mr. Leveess has been practising for ten years in the field of public accounting and is a member of the New York Bar.

ending between March 1st and June 30th, it must file its franchise tax return within four months after the close of the fiscal year. New corporations organized between May 14th and November 1st, are required to file their return during the month of November, using Form 60C.T.

Computation of the tax is made by four different methods. That method must be used which will yield the largest tax to the state. They are as follows:

1. 6% of the net income shown in the company's last report to the federal government.

2. Add to the net income reported as above all salaries paid to elected officers, and to stockholders owing in excess of 5% of issued stock. Deduct \$5,000.00 and apply the 6% rate to the remainder. Under this method—also the first—certain adjustments must be made for interest paid to stockholders or their immediate families and for interest income exempt from federal taxation.

3. 1/10% on the value of issued capital stock. Such value, for franchise tax purposes, may not be less than its face or market value, and not less than its net worth, and not less than \$5.00 per share.

4. A minimum of \$25.00.

One half of the tax, or \$25.00, whichever is greater, is payable at the time the report is filed. The balance is due within thirty days after the corporation receives a bill from the state which will be between October 16th and December 16th. If no bill is received, the balance must be paid on or before January 15th. The taxpayer may, if it desires, remit the full tax when filing the report.

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Corporations organized outside the State of New York, but doing business within the state, are also required to file on Form 31T. The tax is termed a license fee and is based upon the issued capital stock.

Where a corporation has assets both within and without the state, it may file a statement segregating the same and pay only such proportion of the computed tax as its assets located in New York bears to its total assets. The minimum of \$25.00 for domestic corporations and \$10.00 for foreign corporations still remains.

Q. What is the proper accounting procedure in providing for bad debts?

A. There are two methods generally in use. The first is to charge off accounts to bad debts as and when they are determined to be uncollectible. The second, and more conservative practice, is to maintain a reserve for bad debts which will be adjusted periodically based upon past experience.

Either procedure is acceptable to the tax authorities, provided that the one first adopted is followed consistently.

Where the taxpayer desires to change from one procedure to the other, their permission must first be obtained.

In maintaining a reserve account, it is customary to set aside a certain percentage of sales for the current period, which percentage will be determined by previous experience and also by the condition of accounts outstanding at the close of the period. Additions to the reserve account, for tax purposes, must be reasonable, considering the nature of the business, the total outstanding accounts, and the amount of the existing reserve.

Q. Notes received from our customers are discounted by us and the proceeds credited to the customers' accounts. Is there a better procedure for handling such transactions?

A. In discounting customers' notes, your company remains contingently liable until they are paid. The correct entry, when a note is received, is to charge Notes Receivable and credit the customer. On discounting the note, the same amount should be credited to Notes Receivable Discounted—the balance in this account will reflect, at all times, the contingent liability for discounted notes. Any difference between the amount of the note and the proceeds received on discounting should be transferred to the Interest account. The final entry is made when your bank advises you that the note has been paid at which time you will debit Notes Receivable Discounted and credit Notes Receivable.

It may happen that some customers' paper will not be discounted. The amount thereof will be reflected by the excess of the balance in the Notes Receivable account over the Notes Receivable Discounted.

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The Air Conditioning Supply Co., Cleveland, Ohio, have moved to larger quarters at 4066 Superior Avenue. This company specializes in air filters, ventilating fans and blowers, and other air conditioning equipment.

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REINISH, SAMUEL S., C. P. A., 2 Lafayette St., New York, N. Y.

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RAPID ROLLER Co., Federal at 26th, Chicago, Ill.
ROBERTS & PORTER, Inc., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.
SINCLAIR & CARROLL Co., Inc., 591 11th Ave., New York, N. Y.
SINCLAIR & VALENTINE Co., 11 St. Clair Pl., New York, N. Y.
VULCAN PROOFING Co., 58th St. and First Ave., Brooklyn, N. Y.

BRONZERS

CHRISTENSEN MACHINE Co., Racine, Wis.
HENSCHEL MFG. Co., Milwaukee, Wis.

CAMERA CONTROLS

DOUTHITT CORP., The, 650 W. Baltimore Ave., Detroit, Mich.

CAMERAS

AGFA-ANSCO CORP., Binghamton, N. Y.
CALIFORNIA INK Co., Inc., The, 545 Sansome St., San Francisco, Calif.

EASTMAN KODAK Co., Rochester, N. Y.
LANSTON MONOTYPE MACHINE Co., 24th at Locust, Philadelphia, Pa.
LEVY, MAX, & Co., Wayne & Berkley Sts., Philadelphia, Pa.
LITHO EQUIPMENT & SUPPLY Co., 215 W. Ohio St., Chicago, Ill.
MILES MACHINERY Co., 18 E. 16th St., New York, N. Y.
NORMAN-WILLETS Co., 318 W. Washington St., Chicago, Ill.
OSTRANDER-SEYMOUR Co., The, 1870 S. 54th Ave., Cicero Sta., Chicago, Ill.
PITMAN, HAROLD M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.
REPRO-ART MACHINERY Co., Wayne Ave. & Berkley St., Phila., Pa.
ROBERTSON, R. R., 400 W. Madison St., Chicago, Ill.
RUTHERFORD MCHY. Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.
SULLEBARGER, E. T., Co., 116 John St., New York, N. Y., and 538 S. Clark St., Chicago, Ill.
WESEL MFG. Co., Scranton, Pa.
ZEISS, CARL, Inc., 485 Fifth Ave., New York, N. Y.

CARDBOARDS AND BRISTOLS

MEAD SALES Co., The, 230 Park Ave., New York, N. Y.
WHEELWRIGHT PAPERS, Inc., 230 Park Ave., New York, N. Y.

CARBON (ARC LAMP)

PEASE Co., C. F., The, 2601 W. Irving Park Road, Chicago, Ill.

CARBON PAPER RIBBONS

REMINGTON RAND, Buffalo, N. Y.

CARBONS

NATIONAL CARBON Co., Cleveland, O.

CARBONS—Photographic

HUNT, PHILIP A., Co., 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, O.—1076 W. Division St., Chicago, Ill.—111 Binney St., Cambridge, Mass.
NORMAN-WILLETS Co., 318 W. Washington St., Chicago, Ill.
SULLEBARGER, E. T., Co., 116 John St., New York, N. Y., and 538 S. Clark St., Chicago, Ill.

CHEMICALS

AGFA-ANSCO CORP., Binghamton, N. Y.
CALIFORNIA INK Co., Inc., The, 545 Sansome St., San Francisco, Calif.

DEFENDER PHOTO SUPPLY Co., Rochester, N. Y.

DOM, G. C., SUPPLY Co., Cincinnati, O.

EASTMAN KODAK Co., Rochester, N. Y.

HUNT, PHILIP A., Co., 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, O.—1076 W. Division St., Chicago, Ill.—111 Binney St., Cambridge, Mass.

LA MOTTE CHEMICALS PRODUCTS Co., 438 Light St., Baltimore, Md.

MALLINKROCKDT CHEMICAL WORKS, 3600 N. Second St., St. Louis, Mo., and 72-74 Gold St., New York, N. Y.

MERCK & Co., Inc., Rahway, N. J.

NORMAN-WILLETS Co., 318 W. Washington St., Chicago, Ill.

PHILLIPS & JACOBS, 622 Race St., Phila., Pa.

PITMAN, HAROLD M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

SIEBOLD, J. H. & G. B., Inc., 47 Watts St., New York, N. Y.

COLOR CONTROL AND MEASURING EQUIPMENT

HUEBNER LABORATORIES, 202 E. 44th St., New York, N. Y.

COMPOSITION

LITHART TYPOGRAPHIC SERVICE, 228 E. 45th St., New York, N. Y.

MONSEN, THORMOD, AND SON, INC., 740 N. Franklin St., Chicago, Ill.

COMPOSING MACHINES

COXHEAD, RALPH C., CORP., 17 Park Place, New York, N. Y.

CRAYONS-Litho

KORN, WM., INC., 260 West St., New York, N. Y.

ROBERTS & PORTER, INC., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

DAMPENING DEVICES

GOODRICH, B. F., Co., THE, Akron, O.

INTERNATIONAL PRESS CLEANER & MFG. Co., THE, 112 E. Hamilton Ave., Cleveland, O.

WAGNER, CHARLES, LITHO MCHY. Co., 51 Park Ave., Hoboken, N. J.

DAMPENING ROLLER COVERS

GODFREY ROLLER COMPANY, 211 N. Camac St., Phila., Pa.

ROBERTS & PORTER, INC., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.

DEEP ETCH SUPPLIES

PITMAN, HAROLD M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

SCHULTZ, H. J., 2230 N. Racine Ave., Chicago, Ill.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

DICHROMATE—Ammonium Photo Granular

HUNT, PHILIP A., Co., 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, O.—1076 W. Division St., Chicago, Ill.—111 Binney St., Cambridge, Mass.

DRYERS

CARTER, C. W. H., 100 Varick St., New York, N. Y.

HILO VARNISH CORP., 42-60 Stewart Ave., Brooklyn, N. Y.

SINCLAIR & VALENTINE Co., 11 St. Clair Pl., New York, N. Y.

DRYERS—Photo Print and Stripping Film

SIMPLEX SPECIALTY Co., INC., 206 E. 33rd St., New York, N. Y.

DRYING OVENS

ZARKIN MACHINE Co., INC., 335 E. 27th St., New York, N. Y.

DYNAMOS—MOTORS—PRESS DRIVES AND ELECTRICAL CONTROL EQUIPMENT

AMERICAN TYPE FOUNDERS SALES CORP., 200 Elmora Ave., Elizabeth, N. J.

CLINE-WESTINGHOUSE, Chicago, Ill.

CUTLER-HAMMER MFG. Co., 315 N. 12th Ave., Milwaukee, Wis.

GENERAL ELECTRIC Co., Schenectady, N. Y.

KIMBLE ELECTRIC Co., W. 14th St. & S. Damen Ave., Chicago, Ill.

NORTHWESTERN ELECTRIC Co., 408 S. Hoyne St., Chicago, Ill.

ROBBINS & MEYERS, INC., Springfield, Mo.

WESTINGHOUSE ELECTRICAL & MFG. Co., E. Pittsburgh, Pa.

ENVELOPES

DAYTON ENVELOPE Co., Dayton, O.

STERLING TAG Co., 1600 E. 30th St., Cleveland, O.

ETCHES

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

FADE-O-METER

ATLAS ELECTRIC DEVICES Co., 361 W. Superior St., Chicago, Ill.

FILMS

AGFA ANSCO CORP., Binghamton, N. Y.

CALIFORNIA INK Co., INC., THE, 545 Sansome St., San Francisco, Calif.

EASTMAN KODAK Co., Rochester, N. Y.

GEVAERT Co. OF AMERICA, INC., THE, 423 W. 55th St., New York, N. Y.

HALOID Co., THE, 6 Haloid St., Rochester, N. Y.

HAMMER DRY PLATE & FILM Co., Ohio Ave. & Miami St., St. Louis, Mo.

NORMAN-WILLETS Co., 318 W. Washington St., Chicago, Ill.

FLANNEL

FUCHS & LANG MFG. Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.

INTERNATIONAL PRINTING INK CORP. THE, 636 11th Ave., New York, N. Y.

ROBERTS & PORTER, INC., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

FOLDING MACHINERY

BAUM, RUSSELL ERNEST, 615 Chestnut St., Phila., Pa.

DEXTER FOLDER Co., 28 W. 23rd St., New York, N. Y.

GLYCERINE

HUNT, PHILIP A., Co., 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, O.—1076 W. Division St., Chicago, Ill.—111 Binney St., Cambridge, Mass.

PITMAN, HAROLD M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

GRAINING FLINT

NEW ENGLAND QUARTZ Co. OF NEW YORK, 450 7th Ave., New York, N. Y.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

GRAINING AND REGRAINING—Zinc, Aluminum, Glass and Multilith Plates

CHICAGO LITHO PLATE GRAINING Co., 214-16 N. Clinton St., Chicago, Ill.

DOETZEL-COREY Co., 221 Third St., N. E., Cedar Rapids, Iowa.

ILLINOIS PLATE GRAINING Co., INC., 913-921 W. Van Buren St., Chicago, Ill.

INTERNATIONAL PRINTING INK CORP., THE, 636 11th Ave., New York, N. Y.

LITHOGRAPHIC PLATE GRAINING Co. OF AMERICA, INC., 41 Box St., Brooklyn, N. Y.

McKENNA, JAMES J., 1015 Callowhill St., Phila., Pa.

NATIONAL OFFSET SUPPLY Co., 613 N. Broadway, St. Louis, Mo.

PHOTO-LITHO PLATE GRAINING Co., INC., 1207 S. Highland St., Baltimore, Md.

RELIABLE LITHOGRAPHIC PLATE Co., INC., 17 Vandewater St., New York, N. Y.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

WESTERN LITHO PLATE & SUPPLY Co., 1019 Soulard St., St. Louis, Mo.

GRAINING MACHINES

(See Plate Graining Machines)

GRAINING QUARTZ FLINT

NEW ENGLAND QUARTZ CO. OF NEW YORK, 450 Seventh Ave., New York, N. Y.

GUM ARABIC

HUNT, PHILIP A., Co., 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, O.—1076 W. Division St., Chicago, Ill.—111 Binney St., Cambridge, Mass.

PITMAN, HAROLD M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

HAND ROLLERS

ROBERTS & PORTER, INC., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

SIEBOLD, J. H. & G. B., INC., 47 Watts St., New York, N. Y.

HUMIDIFICATION

AIR CONDITIONING SUPPLY CO., THE, 4066 Superior Ave., Cleveland, O.

CARRIER ENGINEERING CO., Syracuse, N. Y.

SOUTHWORTH MACHINE CO., 30 Warren Ave., Portland, Me.

HYDROQUINONE

HUNT, PHILIP A., Co., 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, O.—1076 W. Division St., Chicago, Ill.—111 Binney St., Cambridge, Mass.

MALLINKROCKDT CHEMICAL WORKS, 3600 N. Second St., St. Louis, Mo., and 72-74 Gold St., New York, N. Y.

NORMAN-WILLETS CO., 318 W. Washington St., Chicago, Ill.

SENEFELDER COMPANY, INC., THE, 32-34 Greene St., New York, N. Y.

INK COMPOUNDS

INDIANA CHEMICAL & MFG. CO., Indianapolis, Ind.; New York City, N. Y., and Chicago, Ill.

INKS

ACHESON INK CO., INC., 142 Skillen St., Buffalo, N. Y.

ACME PRINTING INK CO., 1315 W. Congress St., Chicago, Ill.

AMERICAN PRINTING INK CO., Div. General Printing Ink Corp., 2314 W. Kinzie St., Chicago, Ill.

AUGUST, CHARLES, CORP., THE, 416 Orleans St., Chicago, Ill.

BLACKER, H., PRINTING INKS, INC., 304 Lock St., Cincinnati, O.

BOWERS PRINTING INK CO., 711 W. Lake St., Chicago, Ill.

BRADEN-SUTPHIN INK CO., 3700 Chester Ave., Cleveland, O.

CALIFORNIA INK CO., 545 Sansome St., San Francisco, Calif.

CRESCENT INK & COLOR CO. OF PENNA., THE, 464 N. 5th St., Phila., Pa.

DRISCOLL, MARTIN, & CO., 610 Federal St., Chicago, Ill.

FLINT, HOWARD, INK CO., 2545 Scotten Ave., Detroit, Mich.

FUCHS & LANG MFG. CO., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.

GAETJENS, BERGER & WIRTH, INC., 35 York St., Brooklyn, N. Y., and 538 S. Clark St., Chicago, Ill.

HERRICK, WM. C., INK CO., INC., 325 W. 34th St., New York, N. Y.

HILL-HENTSCHER CO., 3928 Clayton Ave., St. Louis, Mo.

INCO CO., THE, 1426 W. Third St., Cleveland, O.

INTERNATIONAL PRINTING INK CORP., THE, 636 11th Ave., New York, N. Y.

JOHNSON, CHARLES ENEU, & CO., INC., 10th & Lombard Sts., Phila., Pa.

KOHL & MADDEN PRINTING INK CO., 731 Plymouth Court, Chicago, Ill.

LEVEY, FREDERICK H., Co., INC., 1223 Washington Ave., Phila., Pa.

MAYER, ROBERT, Co., INC., 1107 Grand St., Hoboken, N. J.

OKIE, FRANCIS G., 247 S. Third St., Phila., Pa.

ROBERTS, LEWIS, INC., 72 Union St., Newark, N. J.

ROOSEN, H. D., Co., Ft. 20th-21st St., Brooklyn, N. Y.

SENELITH INK CO., INC., THE, 32-34 Greene St., New York, N. Y.

SIEBOLD, J. H. & G. B., INC., 47 Watts St., New York, N. Y.

SINCLAIR & CARROLL CO., INC., 591 11th Ave., New York, N. Y.

SINCLAIR & VALENTINE CO., INC., 11-21 St. Clair Pl., New York, N. Y.

SLEIGHT METALLIC INK COMPANIES, INC., 538 N. Third St., Phila., Pa.

SUPERIOR PRINTING INK CO., INC., 295 Lafayette St., New York, N. Y.

TRIANGLE INK & COLOR CO., INC., 26 Front St., Brooklyn, N. Y. (also Boston, Mass., Baltimore, Md., and St. Louis, Mo.).

WILLIAMS, R. S., Co., INC., 257 W. 17th St., New York, N. Y.

WINSLOW INK CORP., 124-132 White St., New York, N. Y.

INK WAX REDUCER (Smoothol Ink Wax)

SMITH, FRANCIS X., Co., 952 E. 93rd St., Brooklyn, N. Y.

INSURANCE—Workmen's Compensation

N. Y. PRINTERS & BOOKBINDERS MUTUAL INSURANCE CO., 147 Fourth Ave., New York, N. Y.

LAMPS, Arc

ATLAS ELECTRIC DEVICES CO., INC., 361 W. Superior St., Chicago, Ill.

BEATTIE'S HOLLYWOOD HI-LITE CO., 1560 N. Vine St., Hollywood, Calif.

GELB, JOSEPH, MFG. CO., 250 W. 54th St., New York, N. Y.

MACBETH ARC LAMP CO., 875 N. 28th St., Phila., Pa.

PEASE, C. F., Co., THE, 2601 W. Irving Park Road, Chicago, Ill.

SULLEBARGER, E. T., Co., 116 John St., New York, N. Y., and 538 S. Clark St., Chicago, Ill.

LENSES

BAUSCH & LOMB OPTICAL CO., Rochester, N. Y.

GOERZ, C. P., AMERICAN OPTICAL CO., 317 E. 34th St., New York, N. Y.

NORMAN-WILLETS CO., 318 W. Washington St., Chicago, Ill.

PITMAN, HAROLD M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

SULLEBARGER, E. T., Co., 116 John St., New York, N. Y., and 538 S. Clark St., Chicago, Ill.

ZEISS, CARL, INC., 485 Fifth Ave., New York, N. Y.

LINE-UP AND REGISTER MACHINES, SYSTEMS AND TABLES

CRAFTSMEN LINE-UP TABLE CORP., 49 River St., Waltham, Mass.

DOUTHITT CORP., THE, 650 W. Baltimore Ave., Detroit, Mich.

HAMILTON MFG. CO., INC., Two Rivers, Wis.

LANSTON MONOTYPE MACHINE CO., 24th at Locust, Phila., Pa.

MILES MACHINERY CO., 18 E. 16th St., New York, N. Y.

ROBERTSON, R. R., 400 W. Madison St., Chicago, Ill.

WESEL MFG. CO., Scranton, Pa.

LITHO DEVELOPING INK

HUNT, PHILIP A., Co., 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, O.—1076 W. Division St., Chicago, Ill.—111 Binney St., Cambridge, Mass.

INTERNATIONAL PRINTING INK CORP., THE, 636 11th Ave., New York, N. Y.

LITHO ENGRAVING AND DRAWINGS

LITHO TRADE SERVICE STUDIO, 538 S. Clark St., Chicago, Ill.

MACHINISTS

RATHBUN & BIRD CO., INC., 85 Grand St., New York, N. Y.

MAGNIFYING AND REDUCING GLASSES

NORMAN-WILLETS CO., 318 W. Washington St., Chicago, Ill.

REPRO-ART MACHINERY CO., Wayne Ave. & Berkeley St., Phila., Pa.

ZEISS, CARL, INC., 485 Fifth Ave., New York, N. Y.

MAKE-UP TABLES

LANSTON MONOTYPE MACHINE Co.,
24th at Locust, Phila., Pa.
MILES MACHINERY Co., 18 E. 16th
St., New York, N. Y.
ROBERTSON, R. R., 400 W. Madison
St., Chicago, Ill.
WESEL MFG. Co., Scranton, Pa.

METAL DECORATING EQUIPMENT

WAGNER, CHARLES, LITHO MACHINERY
Co., Div. of National-Standard Co.,
51 Park Ave., Hoboken, N. J.

MOLESKIN AND MOLLETON

INTERNATIONAL PRINTING INK CORP.,
THE, 636 11th Ave., New York, N.Y.
MCKINLEY LITHO SUPPLY Co., 1600
John St., Cincinnati, O.
ROBERTS & PORTER, INC., 100 Lafay-
ette St., New York, N. Y., and 402
S. Market St., Chicago, Ill.
SENEFELDER COMPANY, INC., THE, 32-
34 Greene St., New York, N. Y.
SIEBOLD, J. H. & G. B., INC., 47 Watts
St., New York, N. Y.
WAGNER, CHARLES, LITHO MACHINERY
Co., Div. of National-Standard Co.,
51 Park Ave., Hoboken, N. J.

MOTORS AND CONTROLLERS

CLINE ELECTRIC MFG. Co., 211 W.
Wacker Drive, Chicago, Ill.

NEGATIVE MATERIALS

AGFA ANSCO CORP., Binghamton, N. Y.
CRAMER, G., DRY PLATE Co., Lemp &
Shenandoah Ave., St. Louis, Mo.
EASTMAN KODAK Co., Rochester, N. Y.
GEVAERT Co. OF AMERICA, INC., THE,
423 W. 55th St., New York, N. Y.
HALOID Co., THE, 6 Haloid St., Roches-
ter, N. Y.
HAMMER DRY PLATE & FILM Co.,
Ohio Ave. & Miami St., St. Louis, Mo.
NORMAN-WILLETS Co., 318 W. Wash-
ing St., Chicago, Ill.

OFFSET PLATE MAKING SERVICE (See Plate Making Service)

OPAQUE AND DEVELOPING INK

ACHESON INK Co., INC., Skillen St.,
Buffalo, N. Y.
ARTISTS' SUPPLY Co., 7610 Decker
Ave., Cleveland, O.
INTERNATIONAL PRINTING INK CORP.,
THE, 636 11th Ave., New York, N. Y.
OKIE, FRANCIS G., 247 S. Third St.,
Phila., Pa.
SENEFELDER COMPANY, INC., THE, 32-
34 Greene St., New York, N. Y.

PAPER

AETNA PAPER Co., THE, Dayton, O.
AMERICAN WRITING PAPER Co., Hol-
yoke, Mass.

BECKETT PAPER Co., THE, Hamilton, O.
CANTINE, MARTIN, Co., THE, Sauger-
ties, N. Y. and 41 Park Row, New
York, N. Y.

CASE & RISLEY PRESS PAPER Co.,
Oneco, Conn.
CHAMPION PAPER & FIBRE Co., Hamil-
ton, O.
CHILLICOTHE PAPER Co., THE, Chilli-
cothe, O.
DILL & COLLINS, INC., Richmond &
Tioga Sts., Phila., Pa.
FALULAH PAPER Co., Fitchburg, Mass.,
and 500 Fifth Ave., New York, N. Y.
FRASER INDUSTRIES, INC., Graybar
Bldg., New York, N. Y.
HAMILTON, W. C., & SONS, INC.,
Miquon, Pa.
HAMMERMILL PAPER Co., Erie, Pa.
HOLLINGSWORTH & WHITNEY Co., 140
Federal St., Boston, Mass.
HOWARD PAPER Co., Urbana, Ohio
INTERNATIONAL PAPER Co., 220 E.
42nd St., New York, N. Y.
MAXWELL PAPER Co., Franklin, O.
NEENAH PAPER Co., Neenah, Wis.
NORTHWEST PAPER Co., THE, Cloquet,
Minn.
RHINELANDER PAPER Co., Rhineland, Wis.
RIEGEL PAPER Co., 342 Madison Ave.,
New York, N. Y.
WARREN, S. D., Co., 89 Broad St.,
Boston, Mass.
WATERVLIET PAPER Co., Watervliet,
Mich.
WHITING, GEO. A., PAPER Co., Men-
asha, Wis.

PAPER CONDITIONING EQUIPMENT

ADVANCE MFG. Co., INC., Louis-
ville, Ky.
SOUTHWORTH MACHINE Co., 30 War-
ren Ave., Portland, Maine.
STRACHAN & HENSHAW Co., LTD., 7th
at Grange St., Phila., Pa.

PAPER CUTTING MACHINES

SEYBOLD DIVISION, HARRIS-SEYBOLD-
POTTER Co., Dayton, O.

PAPER AERATION

SOUTHWORTH MACHINE Co., 30 War-
ren Ave., Portland, Me.

PAPER HANGERS—Holdfast

SOUTHWORTH MACHINE Co., 30 War-
ren Ave., Portland, Me.

PAPER JOGGING MACHINES

SOUTHWORTH MACHINE Co., 30 War-
ren Ave., Portland, Me.

PARAFORMALDEHYDE—U. S. P.

HUNT, PHILIP A., Co., 253 Russell
St., Brooklyn, N. Y.—2432 Lake-
side Ave., Cleveland, O.—1076 W.
Division St., Chicago, Ill.—111 Bin-
ney St., Cambridge, Mass.

MALLINKROCKDT CHEMICAL WORKS,
3600 N. Second St., St. Louis, Mo.,
and 72-74 Gold St., New York, N. Y.

PHOTO COMPOSING MACHINES

LANSTON MONOTYPE MACHINE Co.,
24th at Locust, Phila., Pa.
RUTHERFORD MACHINERY Co., Div.
General Printing Ink Corp., 100
Sixth Ave., New York, N. Y.
STRACHAN & HENSHAW Co., LTD., 7th
at Grange St., Phila., Pa.
WESEL MFG. Co., Scranton, Pa.

PHOTO LETTERING MACHINES

RUTHERFORD MACHINERY Co., Div.
General Printing Ink Corp., 100
Sixth Ave., New York, N. Y.

PLATE COATING EQUIPMENT

LANSTON MONOTYPE MACHINE Co.,
24th at Locust, Phila., Pa.
RUTHERFORD MACHINERY Co., Div.
General Printing Ink Corp., 100
Sixth Ave., New York, N. Y.
WESEL MFG. Co., Scranton, Pa.
ZARKIN MACHINE Co., 335 E. 27th St.,
New York, N. Y.

PLATE GRAINING MACHINES

FRI TSCHKE, R., 145 Hudson St., New
York, N. Y.
HOE, R., & Co., INC., 910 E. 138th St.,
at East River, New York, N. Y.
MCKINLEY LITHO SUPPLY Co., 1600
John St., Cincinnati, O.
ROBERTSON, R. R., 400 W. Madison
St., Chicago, Ill.
WESEL MFG. Co., Scranton, Pa.
ZARKIN MACHINE Co., INC., 335 E.
27th St., New York, N. Y.

PLATE GRAINING MATERIALS

AMERICAN GRADED SAND Co., 2516
Greenview Ave., Chicago, Ill.
CARBORUNDUM Co., Niagara Falls, N.Y.
INTERNATIONAL PRINTING INK CORP.,
THE, 636 11th Ave., New York, N.Y.
MINNESOTA MINING & MANUFACTUR-
ING COMPANY, Saint Paul, Minne-
sota.
NEW ENGLAND QUARTZ Co. OF NEW
YORK, 450 Seventh Ave., New York,
N. Y.
SEIBOLD, J. H. & G. B., INC., 47 Watts
St., New York, N. Y.
SENEFELDER COMPANY, INC., THE, 32-
34 Greene St., New York, N. Y.
ZARKIN MACHINE Co., INC., 335 E.
27th St., New York, N. Y.

PLATE MAKING EQUIPMENT

CALIFORNIA INK Co., INC., THE, 545
Sansome St., San Francisco, Calif.
LANSTON MONOTYPE MACHINE Co.,
24th at Locust St., Phila., Pa.
MILES MACHINERY Co., 18 E. 16th St.,
New York, N. Y.

RUTHERFORD MACHINERY Co., Div.
General Printing Ink Corp., 100
Sixth Ave., New York, N. Y.
STRACHAN & HENSHAW Co., LTD., 7th
at Grange St., Phila., Pa.
WESEL MFG. Co., Scranton, Pa.

PLATE MAKING SERVICE

CHICAGO LITHO PLATE GRAINING Co.,
214 N. Clinton St., Chicago, Ill.
COLUMBIA OFFSET & REPRODUCTION
CORP., 2 Duane St., New York, N. Y.
GRAPHIC ARTS CORP., 1104 Jackson
Ave., Toledo, O.
KNOP & BRAUER, 1726 N. First St.,
Milwaukee, Wis.
LITHOPLATE Co., 101 E. Clybourn St.,
Milwaukee, Wis.
OFFSET ENGRAVERS ASSOCIATES, INC.,
42 E. 20th St., New York, N. Y.
OFFSET PRINTING PLATE Co. OF NEW
YORK, INC., 100 Bleecker St., New
York, N. Y.
PHOTO-LITHO PLATE SERVICE Co., 113
St. Clair Ave., N. E., Cleveland, O.
PRINTERS' OFFSET PLATE Co., 103
Lafayette St., New York, N. Y.
PROGRESSIVE FINE ARTS Co., 1027 N.
Seventh St., Milwaukee, Wis.
RIGHTMIRE-BERG Co., 717 S. Wells
St., Chicago, Ill.
SWART-REICHEL, INC., 461 Eighth
Ave., New York, N. Y.
STEVENSON PHOTO COLOR SEPARATION
Co., 222 W. Fourth St., Cincinnati, O.

PLATES—Aluminum, Zinc

ALUMINUM Co. OF AMERICA, Gulf Bldg.,
Pittsburgh, Pa.
AMERICAN ZINC PRODUCTS Co., Green-
castle, Ind.
EDES MFG. Co., THE, Plymouth, Mass.
ILLINOIS ZINC Co., 332 S. Michigan
Ave., Chicago, Ill.
INTERNATIONAL PRINTING INK CORP.,
THE, 636 11th Ave., New York, N. Y.
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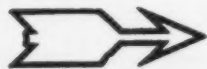
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LITHOGRAPHY IS GOING PLACES!

WELL, gentlemen, we have had the rare privilege tonight of listening to Mr. Bruehl and Mr. Aymar, the artist and the art director. Now you have to listen to the man in overalls.

We like color photographs. We like them in our business because we can see definite progress in that direction. We see an opening whereby our business, lithography, may expand into publications, into newspapers, simply by answering the usual question of how to reproduce color photographs by lithography the simplest way possible.

Before I go further, I cannot and will not admit that work of that type cannot be reproduced lithographically. I say it is absolutely possible, not simple, but possible, and in my opinion, superior to anything that the photo-engraver can produce. While Mr. Bruehl claims, and I agree with him, that when it comes to photography the glossy print is snappier, has more depth, more attractiveness, I am also ready to contradict him in this manner: every time we see a glossy print reproduced typographically, we notice a decided pattern of the screen, which is objectionable. It is too mechanical.

We have chosen offset for that very reason, because it has a tendency to soften the mechanical effect which the screen gives. Of course, we must be ready to admit that the photo-engraver has the edge on us when it comes to retouching that stuff.

About a week ago I went up to Rochester and visited the Eastman Kodak Co., to see how they reproduce Kodachromes. It was quite interesting. I asked them, "How is it that you fellows reproduce or separate colors on Kodachrome slides, but when we take that slide and try to separate colors we don't get anywhere near what we want?" No answer.

I also went through their engraving department to see what they were doing there. I was told that, by the method they use, if you take a Kodachrome slide and reproduce it, retouching is reduced to a minimum.

A few reasons why were given by W. N. Misuraca, Director of Lithography, National Can Company, New York, when he addressed the Young Lithographers' Association, New York, at a recent meeting, following talks on the subject of Color Photography by Gordon Aymar, Art Director of Compton Advertising, Inc., and Anton Bruehl, well-known free-lance photographer.

The talks given by Mr. Aymar and Mr. Bruehl were printed in the May issue of *The Photo-Lithographer*.

They had a slide there which they were reproducing for *The New Yorker* magazine. It was a marine scene, with two sail boats, blue water and sky. They told me that it only takes about 20 hours to retouch it. It looked pretty good.

RETOUCHING IS MAJOR PROBLEM

Our major problem is the question of retouching. The photo-engraver has an old fashioned method of etching plates. He has thorough control over it, and knows what he is doing. We have to deal with positives or negatives, mostly positives, and dot etching, as you know. It is a good method of color correcting but, nevertheless, it costs money and necessitates a great deal of skill. I hate to think of what would happen to one of those photographs in this exhibit of Mr. Bruehl's if one of our artists started working on it. You would not know it any more.

The obvious solution, it seems to me, is masking—to make the reproduction of direct color photographs as mechanical as it can be made. Most of you are familiar with masking methods. We have, for instance, the Murray or Eastman method and the Densitometer. I don't know whether any of your people use them, but it is the most accepted at this moment of all masking methods. Personally, I don't think much of it. The reason is that I cannot convince myself that by taking a negative and making a positive from it and putting them together that it does not flatten the negative. This no doubt is what Mr. Bruehl had in mind when he

said that tonight was the first time he had ever seen lithography done from direct color that wasn't flat. In using the positive masking method, that is by covering a negative with a positive, you cannot cover the middle tones without covering the shadows. Any time you cover the shadows you flatten the reproduction. The most attractive parts of any reproduction are the shadows.

The photographer has a problem on his hands, because in the screening operation, he cannot expose for the shadows and have clean highlights without doing quite some retouching and dot etching by hand.

I am not inclined to discount the masking method, but by using negative masks instead of positives, we feel that we obtain more satisfactory results. We have worked with it for some time and we think we know what we are doing. We do mask negatives with another negative so that the shadows remain brilliant in the process of screening. The shadows receive a higher percentage of exposure in comparison with the rest of the film. I think a job screened from negative masks is unusual.

We make contact positives from negatives and, by reversing, convert them into negatives again so that when you put the two face to face, in contact, they will synchronize perfectly. We trim the masking negative one inch all around and fasten it to the original negative by taping. After the first exposure, which will expose the shadows and part of the middle tones, we take one negative off and continue the expo-



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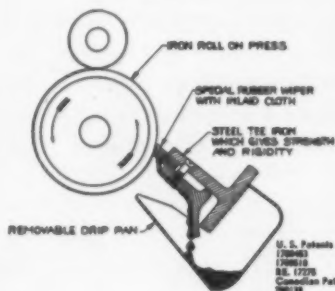


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A LOT LEFT UNSAID ABOUT SCREENING

One Saturday afternoon about two weeks ago, I slipped on a pair of overalls and sneaked back into the camera room. What I had in mind was this: I had been reading and studying a book published by Dr. Mertle with reference to the refraction of light through screen openings, and I wanted to try to prove that what I read corresponded to facts. Out of a clear sky I had an idea. I placed a negative in contact with the plate, set the screen and gave it some kind of a screen distance which I thought would be proper. I made the exposure expecting to see a screen positive composed of dots of the same diameter but of different density. To my surprise I had a perfect screen positive just by contact! That proved thoroughly that each opening of the screen is a lens in itself which photographs only the diameter of the opening in the lens, and by continuing the experiment, I was surprised to find that I was able to photograph without a lens. I left the diaphragm in and sure enough, I had a screen positive, which proves this fact conclusively. There is a lot that as yet we don't know. We take too much for granted when reproducing work by screening for lithographic purposes.

LITHO PRESS SPEEDS WILL REACH NEW HIGHS

I am prepared to answer all kinds of questions, and there is just one more thing I want to say. I think I am in the right business. I think we are going places, and I hope some day that I will have the privilege of reproducing one of Mr. Bruehl's beautiful photographs, and prove to him that lithographers can do a good job.

Has High Regard for Western Lithographers

Hugh R. Adams, Jr., vice-president of Roberts & Porter, "Makers of Good Roller Skins," Chicago, Ill., reported on his return recently from a three and a half weeks trip to the West Coast that business in the far West was holding up well.

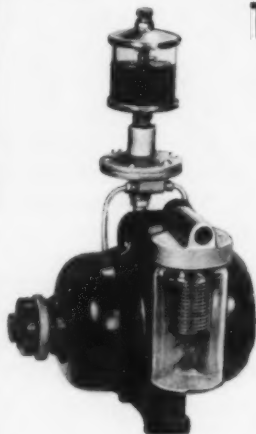
Mr. Adams visited many interesting lithographic plants, including Schmidt Lithographing Company, San Francisco, one of the largest in the country, and the Western Lithograph Company, Los Angeles. He returned to Chicago with a very high opinion of the Western lithographers; their warm cordiality made it a real pleasure to do business with them, according to Mr. Adams.

Schaff Heads Philadelphia Typothetae

Merle S. Schaff, president of Dando-Schaff Printing & Publishing Company, Philadelphia, and a director of the National Association of Photo-Lithographers, has been elected president of the Typothetae of Philadelphia, Inc.

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Copifyer Corporation Issues Beautiful Calendar



The Copifyer Lithograph Corporation of Cleveland, Ohio, have sent out a beautiful calendar running from April to next March and featuring a full color painting titled Marco Polo.

Copifyer scored in several ways with this attractive calendar. In addition to being a first-class testimonial to the fine craftsmanship of Copifyer, the calendar takes advantage of the news interest in China, and also of the fact that several months after the first of the year a new calendar—especially one so well done—provides a refreshing and welcome change in wall "dressing."

July Issue Will Contain Interesting Articles

Because of the large amount of space devoted to the Lithographers National Convention, it has been necessary to postpone until the July issue a number of other very interesting articles, especially several concerned with technical and mechanical phases of lithography.

Watch for the July issue!

Webendorfer-Wills Now Selling New Press

Lithographers who use letterpress equipment for imprinting and similar work should be interested in the latest development of Webendorfer-Wills Co. Inc., Mount Vernon, N. Y.—it is known as the Webendorfer Little Giant Automatic Cylinder Press.

The following specifications on this press have been issued by the manufacturers:

Maximum sheet 12 x 18; maximum printing area 11 $\frac{3}{8}$ x 17 $\frac{1}{2}$; feeder equipped with vacuum air pump so that it may be set independently of the press; constructed wherever possible with anti-friction bearings; furnished with either table or extension delivery; extension delivery so arranged that it will swing up out of the way when putting chase in and out of bed.

The 12 x 18 Little Giant press is completely automatic and will print anything from onion skin to four-ply cardboard, including blotting stock and envelopes, with perfect register and adequate ink distribution for half-tone and color printing, according to the Webendorfer-Wills Co.

This new press should prove popular for quick make-ready on special work such as imprinting, and can turn out general letterpress work of good quality.

Senefelder Publishes Miniature Lithographic Dictionary

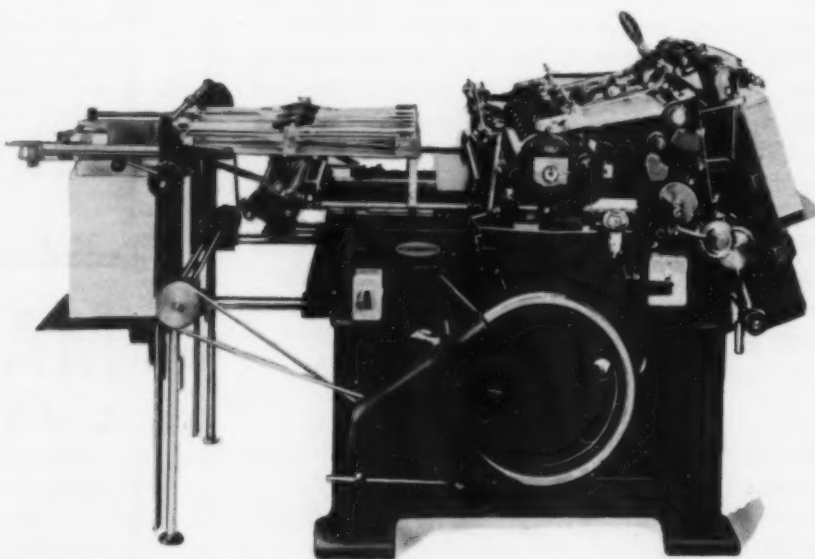
The Senefelder Company, Inc., 32-34 Greene Street, New York, quite appropriately has used its slogan, "Everything for Lithography" as the title of a 64-page booklet, recently published, which is more of a dictionary of everything used by lithographers than it is a catalog of Senefelder products, although that well-known company handles almost everything that is mentioned in the booklet.

This little booklet has an extraordinary amount of information contained in its handy pages, and all of it is carefully classified. It should be an invaluable source of reference for both beginners in lithography and veteran craftsmen.

A number of pages are devoted to the story of the invention of lithography, followed by comprehensive descriptions of lithographic stones, plates, papers, inks, and presses.

Some idea of the wealth of information contained in this booklet is found in the fact that the Materials Index lists almost 250 items.

The Senefelder Company will be glad to send a copy of this booklet to anyone in the industry.



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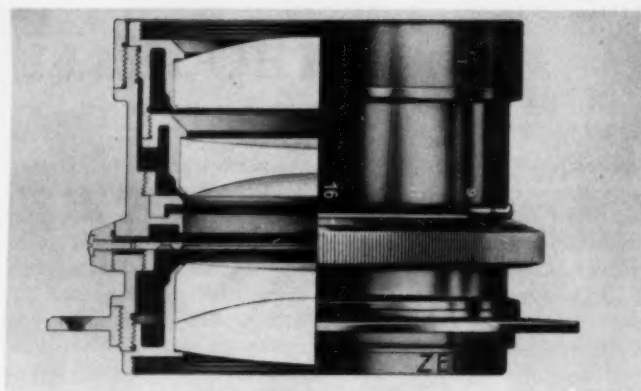
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LITHOGRAPHIC ABSTRACTS

Abstracts of important current articles, patents, and books, compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department of Lithographic Research, and (2) Books of Interest to Lithographers. Either list may be obtained for six cents, or both for ten cents (in stamps). Address the Department of Lithographic Research, University of Cincinnati, Cincinnati, Ohio.

Photography and Color Correction

Colour Sensitive Materials. (Book). R. M. Fanstone. Published by Sir Isaac Pitman & Sons, Ltd., Pitman House, Parker Street, Kingsway, London, W.C. 2, England. 1937. 8s. 6d. The theory and practice of photographing colored objects is covered in detail, particular attention being paid to the color-sensitive materials now available.

Testing Half-tone Screens for the Right Angle Condition. A. J. Bull. *Photographic Journal*, 78, Mar. 1938, pp. 130-6. If the rulings of the half-tone screen approximate very closely a right-angle, and if the correct angles are used for the screen in making color separation negatives no pattern will be apparent in the color print, even in dark brownish gray areas. Four methods are given for testing the angle of the rulings in the half-tone screen, the preferred method being described in detail.

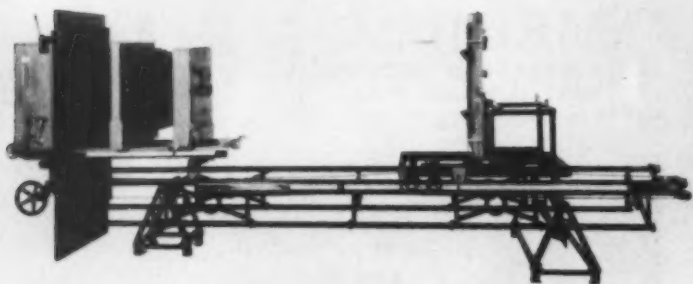
The Ilford Screen Direction Indicator. F. J. Tritton. *Modern Lithographer and Offset Printer*, 34, No. 4, Apr. 1938, pp. 72, 76. This screen direction indicator is a small device intended to provide a check on the setting of the screen angles and to yield a permanent record on every negative tested. The design and use of the indicator are described and illustrated. The device is available in several different sizes to provide for enlargements and reductions and also on celluloid film for use when continuous-tone transparencies are used in making screen negatives or positives.

The Limits of Automatic Offset Reproduction as We See It Today. G. Ullmann. *Reproduktion*, 8: 126-27, August, 1937. It is proposed that the handwork of the color etcher can be completely eliminated, in spite of rumors to the contrary. Perfect originals are required for the success of masking methods, but those found in everyday practice are generally unsuitable. Such methods are valuable aids in making high-quality reproductions by single-color offset from certain types of original, such as pencil and crayon drawings, landscapes, and retouched mechanical subjects. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 24, p. 133 (1938).)

Pro's and Con's of the One-Exposure Color Camera. J. White. *Photo-Engravers' Bulletin*, 27: 13-17, February, 1938. The one-shot camera is useful for instantaneous exposures. It is essentially a box camera with little flexibility. The range of movement of the lens is about 7 inches on 5 by 7 cameras, with a maximum extension of 17 to 18 inches. The operator has little control over exposure ratio. The negatives are not so sharp as separate exposures, and the color separation is inadequate. It is adapted to figure and fashion work and indispensable where flashlight exposures are necessary. Some of the common one-shot cameras are described. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 24, p. 137 (1938).)

Pattern in Four-color Half-tone. R. S. Cox and C. D. Hallam. *Process Engraver's Monthly*, 45, No. 531, Mar. 1938, pp. 91-3, 96-8. The causes and the methods of reducing pattern in four-color half-tone reproductions are discussed. Twenty-four figures are included to show the results of small deviations from right-angles between rulings in the half-tone screens, and by various angles between the lines of the different screens.

Flashing. T. S. Hiller. *Photo-Lithographer*, 6, No. 4, Apr. 1938, pp. 36, 38, 40, 42, 44. The purpose of flashing is to increase the opacity of each dot at its core. This is needed particularly in the case of shadow dots. Directions



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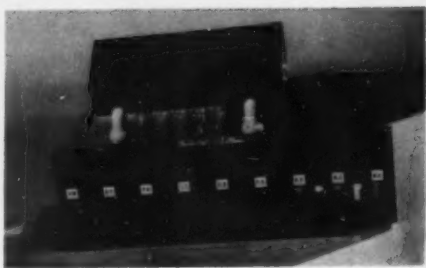
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are given for determining the aperture to be used, and the time of exposure required as well as for developing and fixing the negative. An outline is given to enable the operator to analyze the cause of his failure to produce satisfactory negatives and to correct his procedure so as to avoid difficulties.

Reproduction from New Agfacolor Film. *Reproduktion*, 8: 156, October, 1937. Some operators recommend mounting the transparency between optical flats, which must be colorless. If a photographic plate is used for a mask, the opening must be perfectly clean and free from grain. If a suitable lens is available, screen negatives may be made by direct enlargement from the transparency. A process camera perfectly free from vibration must be used. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 24, p. 136 (1938).)

Progress in Color Photography. D. A. Spencer. *Photographic Journal*, 78, Apr. 1938, pp. 226-9 and insert. Progress in 1937 in color photography consists chiefly in refinements in processes, but two important advances in theory are described: (1) Hardy calculated the characteristics of the ideal analysis system for additive and subtractive reproduction, involving the transmission of the filters and the sensitivity of the emulsion, and (2) Harrison and Horner extended these calculations to the particular case of a mosaic reversal process. From these researches it is shown that the so-called "analysis filters" are more suitable for ordinary still-life work than are the standard tri-color filters, and that "hyper" and "super" sensitive panchromatic materials with increased sensitivity are less suitable for three-color work than material which has sensitivity in red falling off before wave-length 700.

Subsequent Placing of Register Marks on Natural-color Photographs. H. Göckeritz. *Reproduktion*, 8: 192, December, 1937. In the case of negatives made in a one-shot camera, a print on thin film is made from one negative, and dried naturally. On this positive, register crosses and marks with extended limbs, indicating the picture limits, are drawn or scribed, and squares are cut out of the centers of the register marks, and at the corners. The positive is then registered with each negative in turn, and the register marks are drawn through the openings. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 24, p. 135 (1938).)

Producing Copy Patterns. J. Heidenhain. *German Patent* No. 656,237 (Mar. 17, 1938). Process for producing copy patterns whereby the picture is applied by drawing or printing to a transparent substratum covered with an opaque metal layer, and then the metal layer is etched away on the places not occupied by the image, characterized in that a granulated layer is used as transparent substratum.

Planographic Printing Surfaces and Plate Preparation

Types of Transfers in Offset. H. H. Gugler. *Inland Printer*, 100, No. 5, Feb. 1938, pp. 36-8; No. 6, Mar. 1938, pp. 67-9. The methods and equipment used in the hand transfer, albumin, and deep-etch processes are described, and a table is included to show the steps required in each process. The use and advantages of the photo-composing machine are discussed briefly.

The New Pax Plate. *Deutscher Drucker*, 43: 222, 224, September, 1937. Horn used a smooth oxidized aluminum plate, coated with a thin layer of copper. In the non-printing areas, the copper was removed by etching, laying bare the aluminum surface which was an efficient water carrier in the lithographic sense. The Pax plate is being made in Holland under German patents 165,000 and 165,001. In this, the aluminum of the Horn process is replaced by lead. Color etching can be done directly on the plate by local etching of the copper half-tone dots. There is some objection to the softness of the lead layer, and Elfers and van Boekhoven are now developing a smooth copper-plate with a water-carrying layer of a smooth, strong white metal. A positive is used for printing on the metal, the white metal being etched with acid, laying bare the slightly intaglio copper ink-carrying areas. The ink is said to lift cleanly from the copper, thus improving printing density in the offset process. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 24, pp. 130-1 (1938).)

Deep-Etching Hand-Transferred and Albumin Plates. J. W. Mazzaferri. *Lithographers' Journal*, 23, No. 1, Apr. 1938, p. 39. A new deep-etch method uses materials mixed in accordance with the Lithographic

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Technical Foundation's Bulletin No. 9, entitled "Deep-Etched Aluminum and Zinc Plates by the Gum Process," and the procedure described below. The plate to be etched is rubbed up, etched, and powdered with dragon's blood or rosin. The excess powder is removed by washing, and the coating is applied in the usual way for gum arabic. After the gum has been spread with a sponge, it is smoothed down, the gum-top made more acid-resistant by exposure to light, a small amount of deep-etch solution applied, removed with a squeegee and washed with alcohol in five or six applications. The work areas are then made ink receptive with Holtite or some similar material; after thorough drying, developing ink may be applied, and the plate is dried. Soapstone may or may not be used. Lukewarm water is used in development, and the plate is etched and rolled up, or put under asphaltum.

Equipment and Materials

Present Status of Air Conditioning Practice. V. P. Victor. *Paper Trade Journal*, 106, No. 8, Feb. 24, 1938, pp. 184, 186, 188, 190-5. The purpose of this paper is first, to outline the fundamental principles underlying the design of various types of air treating systems; second, to present basic methods and equipment items with their respective cycles; and third, to describe representative installations and their performances.

Effect of Cleaning Solvent and Printing Ink Vehicle upon Offset Rubber Blanket. M. Ogura and K. Nakazima. *Research Bulletin of the Government Printing Bureau*, Tokyo, 1937, No. 3, pp. 35-6. Gasoline is found to be the least harmful cleaning agent of mineral oil type, and ethylene dichloride may be recommended as washing agent among the synthetic solvents. The ink vehicle dissolved by the cleaning agent also penetrates the rubber and remains there, causing difficulties. The most harmful ingredients of ink vehicles are found to be mineral oil and fatty acid.

The Uses of Synthetic Rubbers: Neoprene Offset Blankets. R. B. Clarke. *British and Colonial Printer and Stationer*, 122, No. 496, Apr. 21, 1938, pp. 414-5. There are two main groups of synthetic rubber-like materials: (1) synthetic rubbers which have the butadiene structure, such as the Bunas, and Sovprene and Neoprene,

and (2) thioplasts, or products made by the condensation of various substances with sodium polysulfide, including the Thiocols, Perdurens, Ethanites, and Vulcaplas. The advantages of offset blankets made of Neoprene over blankets of natural rubber are longer life and higher resistance to grease and oil.

Rollers: A Problem to 40 Per Cent of the Industry. E. F. Trotter. *Printing*, 62, No. 4, Apr. 1938, pp. 24-6. Problems arising in the use and care of letterpress and offset lithographic rollers are surveyed, and some pointers are given on better storage conditions and wash-up procedures. A questionnaire is submitted to the trade. Fuller discussions of the problems sent in will be presented in a later article.

Paper and Ink

Paper Control: Why and How. K. F. Weikel. *Inland Printer*, 101, No. 1, Apr. 1938, pp. 27-30. The control of humidity in the pressroom and the conditioning of paper are discussed in their relationship to printing. Bulging and waviness in paper may result from other causes than humidity changes, i.e., from mechanical strains such as those imposed by iron bands left around paper skids and by weights left on tops of skids, and from structural defects in the paper.

Curling of Friction-Calendered Paper. Anonymous. *Papier Zeitung*, 62, No. 38, May 1937, pp. 649-50. A paper mill, on account of complaints from the printer, asks how to avoid curling of friction-glazed paper. Such paper is better suited for letterpress printing; when, however, required for lithography or offset, the paper mill should be informed and a double coated paper chosen, which is lightly friction-calendered and then supercalendered with a stone roll. All four sides should be trimmed. Sufficient aging and conditioning are also very important. (*Paper Trade Journal*, 106, No. 8, Feb. 1938, p. 168.)

Instrumentation Studies. XXVI. Penetration of Papers by Liquids and Solutions. Part II. The Barss, Knobel, and Young News Penetration Tester. Institute of Paper Chemistry. *Paper Trade Journal*, 105, No. 26, Dec. 23, 1937, pp. 35-42. The instrument described in this article was designed to determine the penetration properties of ink, or the sizing of

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paper, using types of inks ordinarily employed in printing, and to do this by the simple, objective process of measuring quantitatively the penetration of any medium into paper. A fundamental and serious objection was found to this instrument, namely that the readings are dependent on the color and opacity of the paper.

What's New in Inks. D. Donovan. *American Pressman*, Dec. 1937, pp. 37-8. New developments in litho inks include faster drying inks, containing synthetic vehicles, with improved general printability and trapping qualities, and increased resistance to rubbing and scratching. Inks with synthetic base for metal decoration dry in a few minutes at 220° F. and have improved adhesion, lifting, and trapping qualities, along with greater brilliance and strength.

Litho Inks for Metal Decorating. W. N. Misuraca. *National Lithographer*, 45, No. 4, Apr. 1938, pp. 22, 51. Ink suitable for metal decorating must be non-porous when dry, resistant to water, and without tendency to soften under the influence of heat. The three major characteristics of good ink for metal printing are (1) good running qualities, (2) satisfactory drying within a limited time, and (3) good fabricating quality, even on bare metal. Types of inks with these characteristics are discussed.

General

Streaks. C. W. Latham. *Photo-Lithographer*, 6, No. 4, Apr. 1938, pp. 30, 32, 34. Practically all streaks across the cylinder are caused by the momentary but periodic rub of the blanket on the plate or paper. The exceptions are roller streaks and the single streak occurring from nine to twelve inches back from the leading bend of the plate. The causes of the cross-the-cylinder streaks are as follows: (1) interrupted rotation caused by imperfections in spur gears, (2) faulty adjustment of inking and dampening roller gears, (3) carelessness in cleaning the teeth of the gear and in oiling, (4) glazed surfaces on rollers, causing changes in speed giving a skidding or wiping action, (5) poor adjustment of roller sockets, (6) discrepancies between surface speeds of ink storage drums and plate, (7) tight or bound bearings, and (8) improper packing and excess pressure. The causes of radial streaks are also discussed. Suggestions for curing these difficulties are given.

Press Photo-Lithography to a Time Schedule.

T. W. Brown. *The Penrose Annual*, 40, (1938), pp. 137-40. The planning of plant layout, and the changes necessary in technique and management methods from usual procedures to suit them to photo-lithographic newspaper and magazine work are discussed. The offset blankets used for this work must be more plastic but less lively than the ordinary blanket, and the inks are formulated for use without reduction. When reduction is required, boiled oil is used in amounts up to an ounce of boiled oil to six pounds of color. The reel-fed, highspeed offset press of the four-cylinder type will give trouble-free running and a good impression for single color work.

THE PHOTO-LITHOGRAPHER

CLASSIFIED ADVERTISING

Rates for this section, 25 cents per line; minimum \$2.50. Count eight words to the line; address to be counted. Remittance must accompany order. Box number addresses are confidential and cannot

be revealed. Unless otherwise stated address replies to The Photo-Lithographer, 1776 Broadway, New York, N. Y.

SITUATIONS WANTED

PHOTOGRAPHER — PLATEMAKER — STRIPPER. Young man, 26, desires position. Complete knowledge, eight years' experience modern plant. Box J-1.

PRODUCTION MANAGER AND ESTIMATOR with factory experience, handling color and planographic orders, thoroughly experienced in office work and some selling. At present employed; would like to connect with growing concern. Can furnish good references. Box J-2.

OFFSET PRESSMAN, formerly foreman and superintendent of several progressive shops. High grade color, commercial, and security work. Can operate two color press, also have practical working knowledge of transferring, proving, and photo plate making. Box J-3.

LITHOGRAPHER, seven years' experience stripping and plate making, color and black work, superintendent high grade litho plant New York many years. Excellent references, married man, go within 150 miles New York. Box J-4.

PHOTOGRAPHER, young man, 27, trained commercial photographer, expert technician, seeks opportunity in photo-lithographic business in New York City or vicinity. Box J-5.

OFFSET FOREMAN — Responsibilities pressroom, plate making, camera and art department. Box F-11.

FOR SALE

25 Amp. Wohl Double Arc Printing Lamps \$25.00
Set Macbeth Camera Lamps 30 Amp. 60.00
22 x 28 Printing Frame complete with pump and motor, new 125.00
20 x 20 Wesel Camera complete with stand and copy board
for dark room operation 300.00

CAMERA ALIGNMENT EXPERTS

Singer Engineering Mfg. Co., 49 Prince St., New York City
Telephone: Canal 6-5810

MULTILITH. 11 x 17, Model 1361, Suction Feed, Complete Plate Making Equipment, Including all motors, 110 AC, 60 Cycle. Whirler with Air Dryer, Vacuum Printing Frame, Single Arc Lamps, and 120 Line Screen. As good as New — used less than 100 hours. Ready and Complete for immediate installation. Cost new \$4,000.00. Will sacrifice account of closing out printing department. Make us an offer.

KUHN PAINT & VARNISH WORKS

P. O. Box 2218, Houston, Texas

Three 12 x 18 automatic Kluge presses, 6 to 12 months old, all equipped with 220 AC 60 cycle single phase Northwestern motors; 2 with electric heaters, 1 with 2-up attachment. Cash or terms. Box J-6.

BUSINESS OPPORTUNITIES

Complete operating lithograph plant with two 22 x 34 presses, located 150 miles from New York City, would like to affect a mutually profitable consolidation with one or two other companies who are desirous of securing low manufacturing costs and the advantages of coordinated effort on sales and production. Box J-7.

Photo-Lithographer's Manual

The Manual, lithographed throughout, includes information on every step in the production of a photo-lithographic job, from the time the piece is planned and sold through to mechanical completion.

Its 306 8½ x 11 inch pages are generously illustrated and contain a wealth of authoritative data that will clearly answer the hows, whys, and wherefores of planning, selling, and producing photo-lithography.

\$4.00 a copy.

Order your copy today.

WALTWIN PUBLISHING COMPANY
1776 Broadway, New York, N. Y.

Milwaukee Bronzers
for all presses. Also some rebuilt units. Write
C. B. Henschel Mfg. Co., Milwaukee, Wisc.

SET YOUR OWN TYPE

with FOTOTYPE Cardboard Letters. Save composition costs on paste-ups. Self-aligning . . . Easy to use. Write for folder. FOTOTYPE, 631 W. Washington, Chicago.

A PROFITABLE OPPORTUNITY

awaits salesmen now calling on specialty shops, department stores and advertising agencies, to sell an unusual service in announcements, illustrated letters, postal cards, etc., produced in full color without the use of color plates or color printing. Tell us about yourself. We'll reciprocate.

Mr. Hoffman, REBA MARTIN, INC.
145 W. 45th St., New York

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(The Advertiser's Index has been carefully checked but no responsibility can be assumed for any omission)

Sorg Changes Personnel

Extensive reorganization of personnel was effected by The Sorg Paper Company, Middletown, Ohio, recently. Among the many changes made were the following:

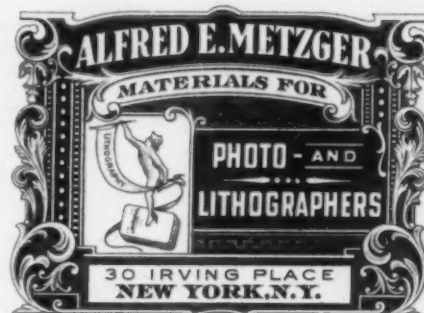
Donald G. Driscoll was elected to the newly created office of Executive Vice President, relinquishing his former duties as Secretary and Assistant to the President.

H. C. Johnson, formerly Treasurer, was elected to the office of Vice President in charge of sales.

John A. Aull, Jr., was elected Secretary and Treasurer.

In the Sales Department, C. J. Nicol was appointed First Assistant Sales Manager, and D. D. Thirkield, Second Assistant Sales Manager.

F. M. Stephens, with offices in the Daily News Building, Chicago, and R. T. Olsen, with offices in the Chanin Building, New York City, will continue in charge of sales in the western and eastern territories respectively.



ULTRA MODERN ALPHABETS

Our hand lettered and imported type alphabets quickly and easily assembled for Lithograph, Planograph or Offset. 32 Styles of Distinction sent Post-paid on receipt of 25 cents.

JOHN C. GRIFFITTS, Elkhart, Ind.

Study FRANK H. YOUNG'S ADVERTISING LAYOUT COURSE At Home

Advertising needs and amply rewards trained, able layout men. Now—for the first time—wherever you are, you can study under supervision of Mr. Young, internationally recognized authority. A practical course based on methods successful at the American Academy of Art. Indorsed by advertising executives, art directors. For beginners and professionals in advertising, art, printing, etc. Learn and apply layout principles—receive expert criticism by mail. Moderate cost. Write for free details.



AMERICAN ACADEMY OF ART

Frank H. Young, Director
Dept. Z, 25 E Jackson Blvd. Chicago, Ill.

"I'M HAVING
THE OLD ROLLERS
MADE UP INTO
DAYCOS"

"GOOD!
THEY'RE THE BEST
ROLLERS WE
EVER USED"

GET BETTER WORK AND REDUCE PRODUCTION COST WITH DAYCO ROLLERS

● On thousands of lithographic presses, Dayco Rollers are giving better results over longer periods and reducing production costs. Daycos stand up far beyond the lives of other rollers. And when they finally need to be reconditioned, they can be made new again—at a fraction of the cost of new rollers—by replacing the Dayco sleeves.

Dayco Rollers are ground to perfect smoothness and accuracy. They remain

that way for millions and millions of impressions, year in and year out, due to their unequaled durability. They resist abrasion and corrosion. They are impervious to inks, washes, and moisture. They are free from cracking and chipping.

The sleeve of the Dayco Roller has just the right consistency for picking up and distributing ink efficiently. This inking quality is maintained throughout its long

life. It never becomes either dead or sticky, and is unaffected by atmospheric changes.

Ask us to have a representative study your requirements and prescribe Dayco Rollers specifically built for you.

And remember, there is only one patented, sleeve-type roller—Dayco! Insist upon the genuine.

THE DAYTON RUBBER MFG. CO.
DAYTON, OHIO

Dayco Rollers

The Original Synthetic Rubber

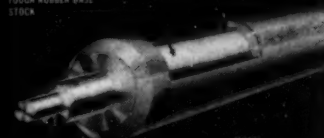


Printing and Lithograph Rollers

COPYRIGHT 1955, THE DAYTON RUBBER MFG. CO.

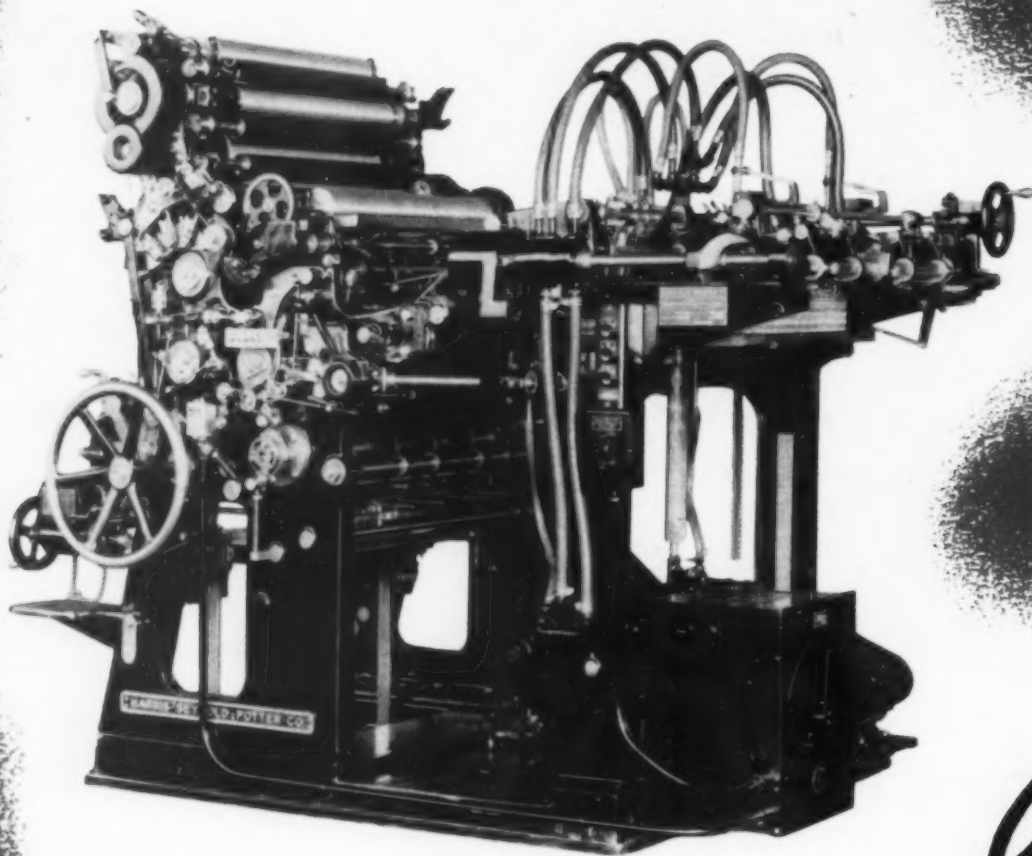
THE ALL-PURPOSE ROLLER FOR FORM, DISTRIBUTOR, DUCTOR, ETC.

DAYCO SURFACE SLEEVE - NOT RUBBER
ESTABLISHED 1911
TONGUE RUBBER BASE
STOCK



DAYCO BASE AND SLEEVE
CAN BE APPLIED TO ANY STOCK

BRANCHES AND DISTRIBUTORS: The Dayton Rubber Mfg. Co. • 206 Park Murray Bldg., 11 Park Place, New York • Room 640, 20 N. Wacker Drive, Chicago • 2970 W. Grand Blvd., Detroit • W. D. Tuck, 121 Broad Street, City Center Bldg., Philadelphia • Chas. M. Lewis, 985 Boulevard, N. E., Atlanta • R. G. Hopff, 5114 Stewart St., Cincinnati • John Leslie Paper Co., Minneapolis and Great Falls • Nassau Paper Co., St. Paul • California Printers Supply Co., 411 E. Pico St., Los Angeles • L. W. Dunlap, 7711 Miramonte Blvd., Los Angeles • Wm. Goodwin, 420 S. San Pedro St., Los Angeles • Pacific Printing Ink Co., Maritime Bldg., Seattle, and 716 Jackson Street, San Francisco • Edward Hauenschild, Honolulu, T. H.



Buy Printing Presses **FOR LONG YEARS OF USE**

**HARRIS
OFFSET
PRESSES**

Press value is determined by maximum number of saleable sheets at the end of each day's run over a period of many years of quantity-quality production at a profit. In printing presses, as in everything else, there are no real bargains in the sense of something for nothing. Interest and depreciation on the basis of hour cost due to a slightly higher investment is a matter of pennies.

Buy a Harris—Built by the pioneer builders of successful offset presses with never a failure. The LSB—17" x 22"—is ideally adapted to the work of the photo-lithographer.

HARRIS • SEYBOLD • POTTER COMPANY

General Offices: 4510 East 71st St., Cleveland, Ohio • Harris Sales Offices: New York, 330 West 42nd St.; Chicago, 343 South Dearborn St.; Dayton, 819 Washington St.; San Francisco, 420 Market St. • Factories: Cleveland, Dayton.

"I'M HAVING
THE OLD ROLLERS
MADE UP INTO
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The Original Synthetic Rubber

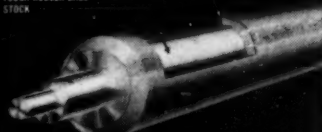


Printing and Lithograph Rollers

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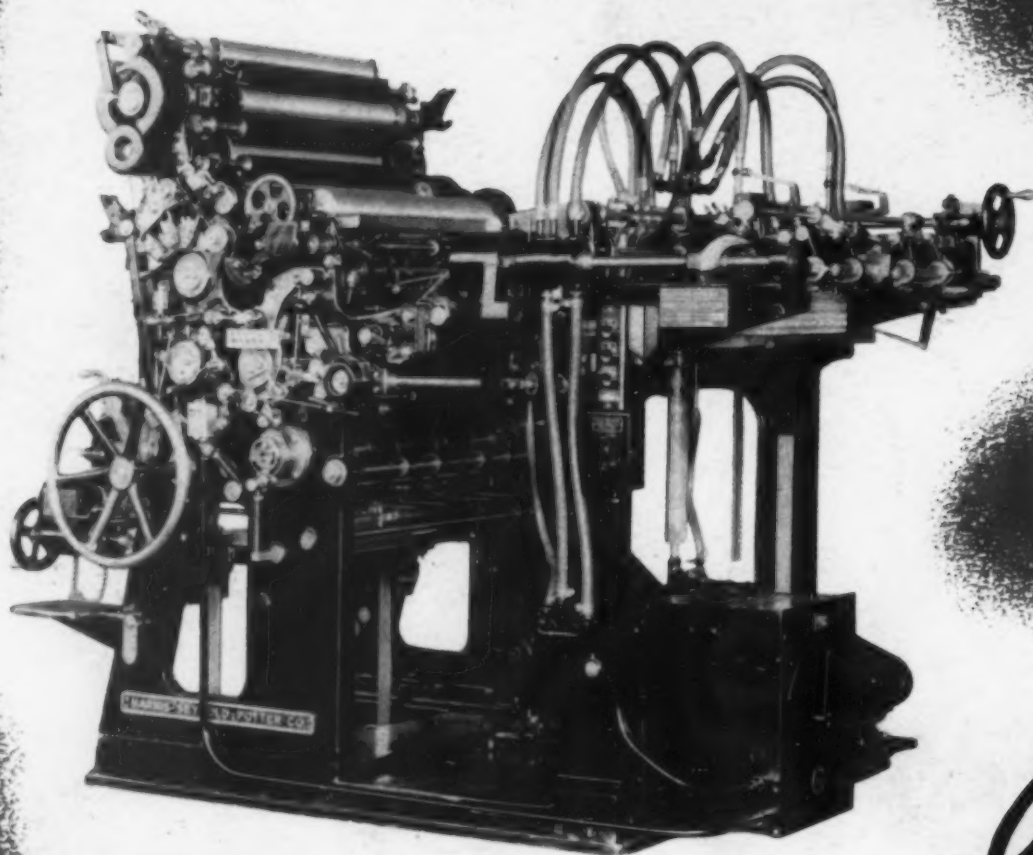
THE ALL-PURPOSE ROLLER FOR FORM, DISTRIBUTOR, DUCTOR, ETC.

DAYCO SURFACE SLEEVE—HOT RUBBER
EXTREMELY SOFT-YET
TOUGH RUBBER BASE
STOCK



DAYCO BASE AND SLEEVE
CAN BE APPLIED TO ANY STOCK

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